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# Teachers College RECORD

October 1928

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# TEACHERS COLLEGE RECORD

VOL. XXX, No. 1 OCTOBER, 1928

WILLIAM F. RUSSELL, *Editor*
Dean of Teachers College

CLYDE J. TIDWELL, *Managing Editor*
Director, Bureau of Publications

THE TEACHERS COLLEGE RECORD is issued eight times a year, monthly except June, July, August, and September. The subscription price is $2.50 per year; foreign postage, 50 cents; Canadian postage, 30 cents. Single numbers are 35 cents each, postpaid.

Publication office, Federal and 19th Streets, Camden, N. J., and 525 West 120th Street, New York City. Editorial and general offices at the latter address. Printed in the United States of America.

Entered as second class matter March 17, 1926, at Post Office at Camden, N. J., under the Act of March 3, 1879.



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VOLUME XXX

October, 1928—May, 1929

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CLYDE J. TIDWELL, *Managing Editor*

PUBLISHED BY
**Teachers College, Columbia University**
525 West 120th Street
New York City

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Education
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VOLUME XXX NUMBER 1

# Teachers College RECORD

October, 1928

## ADDRESSES AT THE INAUGURATION OF THE DEAN

THE following addresses were delivered on the occasion of the installation of William Fletcher Russell, Ph.D., LL.D., as Dean of Teachers College, Columbia University, on April 10, 1928.—EDITOR.

### OPENING ADDRESS

BY CLEVELAND E. DODGE

*Vice-Chairman, Board of Trustees, Teachers College*

BEFORE addressing our new Dean, it seems fitting to refer to his predecessor, Dr. James E. Russell, who for more than a quarter of a century has been the head of this Institution. The best proof of his ability and success is Teachers College itself. Starting with a handful of students, the enrollment has increased by leaps and bounds and the College has become well known throughout the world. Dr. James E. Russell, to a far greater extent than any one else, has been responsible for this success.

William F. Russell has not been chosen Dean because he is the son of his father. He has already proved his worth in other ways. The choice is, however, to all of us a great source of satisfaction and, chiefly so, because it assures the continuation of the spirit and traditions of Teachers College.

I believe that teachers have a greater influence upon the mass of people in this country than any other group or profession. Espe-

cially in a democracy like ours the responsibility that rests upon the public schools is enormous. How truly great an opportunity is afforded to us to influence for good the men and women coming here for training and, through them, a countless number of other teachers and pupils.

Learning by itself is not an unmixed blessing. Wisdom and the right use of knowledge require real character founded upon high principles. Perhaps the success of our Institution is due, more than to any other cause, to the splendid ideals of Dr. James E. Russell and his associates.

Dean Russell, you have succeeded to a post entailing great opportunities for good and responsibility to maintain the splendid influence of the College, not only in matters pertaining to the mind, but equally in those growing from the heart and spirit. We have confidence that this responsibility is appreciated by you and that you have the necessary ability and character to meet it.

It is the earnest wish of every member of the Board of Trustees that you may for many years guide the affairs of this Institution and that its usefulness may not only continue but steadily increase. May we do what we can to maintain the high standards of the teaching profession and to raise up ideals that will challenge the youth of this nation.

It would be hard to estimate the value to Teachers College of its affiliation with perhaps the greatest University in this country. The contacts with leading educators and the advantages of a large variety of courses are tremendous. The President of the University has been associated with Teachers College from its earliest beginnings and there is no individual better able to direct the installation of our new dean. It is with especial pleasure, therefore, that I now request President Butler to deliver the address of installation.

[President Butler delivered the Installation Address and introduced Dean Russell, who spoke as follows.]

# THE HOLIER ALLIANCE

By WILLIAM FLETCHER RUSSELL

"THEY who have handled the Sciences," runs an old translation of the *Novum Organum,* "have been either Empirics or Dogmatists. The Empirics, like the Ant, amass only and use: the latter, like the Spiders, spin webs out of themselves: but the course of the Bee lies midway; she gathers materials from the flowers of the garden and the field; and by her own power turns and digests them. Nor is the true labor of Philosophy unlike hers; it does not depend entirely or even chiefly on the strength of the mind, nor does it store up in the memory the materials provided by Natural History or Mechanical Experiments unaltered, but changes and digests them by the Intellect. And so from the closer and holier alliance of these faculties, (the experimental and the rational)—which have not been connected—good hopes are to be entertained."

It is interesting to note that from these two extremes has come our progress in education. Until recent years, the Dogmatists have prevailed, assembling previous opinion, adding their own reflections and disclosing their oracles. Montaigne and Locke, Comenius and Rousseau, Pestalozzi, Herbart and Froebel are to be classed with those ancients who spun fine the web of their thoughts; and many a present educational leader should be so included.

In contrast the last generation saw the rise of Empirics, who, like the ants, gather and collect. The discovery of the educational equivalents of the thermometer, telescope, and yardstick laid the foundation upon which the structure of a science of education is being erected. Morals and manners, abilities and ambitions, ideas, thoughts, and feelings are being counted, weighed, and measured. New procedures are resulting; old traditions lose their force. What was to the Dogmatist a quality, to the Empiric is a quantity. Goals formerly vague and elusive have become definite and precise. Our ants have amassed great treasure and they are generous with their store.

So in education we have both the Empiric and the Dogmatist. Each has large influence; each has great importance; and each has much in the future to give. But, as Bacon said, the true labor of Philosophy lies not in the rational alone, nor yet in the experimental, but in their closer and holier alliance.

This is easier said than done. Can such a union be achieved in one person? Has any field of knowledge produced in a single individual the combination of the technical skill, experience, competence in research and scientific mind of a Darwin together with the philosophical aptitude and insight, the vision, breadth of knowledge and uncommon sense of a Spinoza or Kant? Has the field of education produced such a man? One wonders if the Baconian "bee" be not a mythical insect, and that each man, like the little "liber-al or conservat-ive," be not destined to become either a spider or an ant.

There may be those who consider the holier alliance a common achievement but we must not be misled. There are, of course, rationalists who adopt the terminology of science, who carry on a little research, who appear empiric; but are they not in fact spiders in ants' clothing? Conversely we know experimentalists who have turned dogmatic. Scientists have manufactured a philosophy of their own which, arising from science, justifies the results of science. We must not be deceived by this spurious alliance. We must not confuse companionate relationship with permanent union.

But we need not despair. If the "holier alliance" be impossible in the individual, it may be achieved in an institution. The ant does not survive alone; neither does man exist apart. Under primitive conditions the individual may stand out, but as society becomes more complex, he fades into the mass. Warfare, as an illustration, was once waged by individuals. In battle a soldier picked his opponent and a series of individual conflicts ensued. But this was ineffective, because unorganized masses have always fallen before the disciplined might of men welded together. Chiefs used to stand out and great warriors were deified. Leonidas and Hannibal are famous. School boys worship Alexander and Napoleon. We all know Grant, Sherman, and Sheridan, but how many can name the three generals and the two lieutenant-generals of the American forces in the world war? We have no living Euclid who represents mathematics, no Aristotle of science, no Hippocrates of medicine. This does not mean that we have no great men. It is only an indication that we have reached the stage where our work is so complex, the basic sciences so diverse, the needed talents so varied, and the fundamental approaches so different, that we can no longer trust to one man. We depend rather upon many, upon a team, a clinic, an orchestra, an army, or an insti-

tution. The outstanding individual is a sign of youth. Only in the institution shall we find the "holier alliance."

We, in science and philosophy, are at war, not that one man may enslave another, nor that his nation may triumph, but that the human race may renew and enlarge its power over the universe, over nature and man himself. We are too much inclined to think of David and Goliath, too likely to consider the thought and action of a man alone. It has even been said that an institution is merely the lengthened shadow of a great man, and the careers of leaders like Gilman, Harper, and Jordan are cited in support. But we must remember that they were presidents of new and young institutions. Emphasis on the individual is a sign of immaturity. No! Our institution is the shadow of a team cast by the sunlight of competence, industry, and inspiration to a length of service far greater than the possibility of all the individuals combined.

Within the institutional hive can we house the spiders and the ants to amass and spin, there to form a congenial home for the bee if one we find.

But mere association within the walls of an institution will not bring the "holier alliance." There is no league, if individuals are isolated and work alone; and if individuality becomes submerged, there are no divergent views to bring together. This requires a delicate adjustment. The spider must not imitate the ant, nor the ant spin webs like a spider. We should seek no process of biological assimilation to develop a new species with all members alike. Within the group it is necessary that there be all sorts and conditions of men working at different tasks by diverse methods, approaching the same problem from varying angles. There must be room for all techniques, all theories, all pronouncements, all results. Education is too complex a problem for one mind completely to grasp, and only from many varying points of view can the truth be derived.

At the same time that individuality is protected, it is important that there be no isolation. Fifty monks in fifty cells will bring no synthesis. Meetings, conferences, mutual interchange all have their part; but the most important stimulus to union is the call of the practical field. Here lies the advantage of the professional school. By its very nature it has always before it the immediate problem of helping to shorten the period of apprenticeship of students who have

real work to do. Its work may be theoretical or impractical, the views of its leaders at odds, but because of the constant call for answers to problems that are pressing, a synthesis of the varying and often conflicting contributions is constantly in the making. If we cannot achieve the "holier alliance" in one mind, or in a number of minds in one institution, possibly it will come when a school is organized, a curriculum built, or a parent advised as to his child.

So we find in Teachers College an institution that fulfills these conditions. Dogmatists we have, a long and distinguished list, and here more than anywhere else, the Empirics hold sway. Freedom and individuality are a part of our tradition; and to demand synthesis of conflicting views, we have our students, our alumni, our schools, and a closely related practical field.

We have also the peculiar and special advantages of our own history. There is the kindly and gracious memory of Grace Dodge, who first saw the vision; and the public spirit of the Macy's, Dodges, Jenkins, Milbanks, Warburgs, Speyers, Rockefellers, Carnegies, and a host of other patrons who made the dream a reality. We have the initial impetus and friendly guidance of President Butler and the momentum from thirty years of foresight, wisdom, and most skillful administration of James Earl Russell. Surely we have here that "holier alliance" for the true labors of our craft.

So it is with appreciation of the accomplishments of the past and with faith in the present that I formally enter upon this office; and I dare to hope that in the future Teachers College may have just as great contributions to make. For good hopes are to be entertained from that "holier alliance" when good men work together.

It is in this spirit, therefore, that I repeat the prayer offered by Francis Bacon at the start of the *Instauratio Magna:*

"May Thou, therefore, O Father, who gavest the light of vision as the first fruit of creation, and who hast spread over the fall of man the light of Thy understanding as the accomplishment of Thy works, guard and direct this work, which, issuing from Thy goodness, seeks in return Thy glory! When Thou hadst surveyed the works which Thy hands had wrought, all seemed good in Thy sight and Thou restedst. But when man turned to the works of his hands, he found all vexation and vanity of spirit, and experienced no rest. If, however, we labour in Thy works, Thou wilt make us to partake of Thy

vision and sabbath; we, therefore, humbly beseech Thee to strengthen our purpose, that Thou mayest be willing to endow Thy family of mankind with new gifts, through our hands, and the hands of those in whom Thou shalt implant the same spirit."

## ADDRESS

By JOHN DEWEY

*Professor of Philosophy, Columbia University*

DOUBTLESS many in this audience have been embarrassed in meeting questions put by European visitors concerning the school system of the United States. Foreign students who carry in their minds the systems with which they are familiar and who naturally employ this knowledge as a standard of judgment are perplexed when confronted with American educational institutions. They inquire into our system and they find from their standpoint no system at all but what strikes them as chaos. In one part of the country they find townships almost a law to themselves, and learn that even fractions of civil units called districts enjoy an almost complete educational autonomy. In other regions, they learn that counties are the units of organization; and that while in a few states, the state itself exercises considerable regulative and supervisory authority, this authority manifests great diversity in actual operation. While all states lay down certain regulations as to minimum requirements for the length of the school year, certification of teachers, character of school buildings and subjects to be taught, there is often little attention paid to any close supervision that sees to it that these regulations are locally enforced. Actual control is mainly exercised by custom. And of a national system as they understand it, the visitor finds not more than a trace. Instead of a minister in the national cabinet clothed with the powers every European state takes for granted, he finds hardly more than a clerical bureau gathering and distributing information but without administrative authority.

I have referred to these familiar facts to place before your minds the background of the development of American education and to suggest the way in which that development has been attained. For

there has been a growth; there is a record of accomplishment. No one is wholly satisfied, least of all such an audience as is here represented. But nevertheless things have happened educationally in spite of the lack of official leadership and regulation. Where has direction of the movement come from? There is of course but one alternative to official or state direction: voluntary and personal leadership, internal ferment and contagion. What has been done has been largely done by inspiration and stimulation issuing from individuals and from educational centres not clothed with authority to impose on the schools their ideas and ideals. Education has been mainly promoted by the processes of education rather than by state administration. Ideas have been communicated by word of mouth, by periodicals, by books, and by observation of the efforts and results of other teachers. New ideas and practices in the field of administration, methods of instruction or subjects of study have spread rather than been enacted and instituted. The spreading has taken place by the same sort of contact, radiation, infiltration, and contagion that changes social habits and beliefs in other fields that do not fall within any governmental regulation.

I am not here to make a comparison of the respective merits of the two systems, or, if you please, of system and lack of system, much less to glorify the method which we have for the most part unconsciously adopted because it corresponded to the conditions of our social life. I have introduced the contrast only by way of calling attention to the intellectual and moral responsibilities that are necessarily involved in our accepted procedure. Exemption of political government and officials from responsibilities that are elsewhere incumbent upon them places corresponding responsibilities upon individuals and institutions. With all our drifting, there must be leadership somewhere, or absence of governmental system will signify lack of all unified and coöperative educational movement. But leadership that is not official can only be intellectual and moral leadership. It is not merely leadership *in* education but it is leadership *by* education rather than by law and governmental authority. Indeed, it is a kind of leadership that gives a new meaning to the word. It is a process of guidance. It takes effect through inspiration, stimulation, communication of ideas, discovery and report of facts, rather than by decree. It is compelled to trust for the most part to the power of

facts and ideas and to the willingness of the community at large to receive and act upon them.

I am probably not divulging anything hidden when I say that these introductory remarks have been framed with a view to calling attention to the opportunity and the responsibility of leadership that a situation like this confers upon an institution like the one in whose interests we have gathered together to-day. It is from institutions like our own that moral and intellectual direction proceeds; and they must continue to exercise this function of guidance if our outward drifting is not to become an inward flux and degeneration. You will not expect from me mere glorification and adulation of our Teachers College. Our loyalty is not so feeble that it has to be fed from such a source. Yet it will not be out of place, if only to remind ourselves of future opportunities and demands, to allude to some phases of the office of moral and intellectual leadership that have already manifested themselves.

Fortunate in its close connection with a great urban university, possessed of a cosmopolitan constituency, and fortunate in the leadership over a long span of years of the beloved retiring Dean, a man open and responsive to every social and intellectual demand, gifted with vision and with courage to act upon his vision, and with the coöperative support of an able faculty, representing practically every aspect and interest of our complex social life, Teachers College has flourished in numbers and in other outward signs of prosperity, because it has recognized the need of American education for educative guidance from within, the need of intellectual direction and inspiration. Numbers make an institution big but not great; what has made Teachers College great has been its firm grasp upon an idea, the perception of the public need for educational guidance, and its devotion to the fulfillment of this need.

To enumerate the various fields in which Teachers College has pointed the way to educational advance and directed practical movements to their realization would be like calling the roll of its departments. For when an educational need has shown itself, this Institution has answered: "Here." To catalogue its achievements would both impose on your time and recite the familiar. To select some as being of superior importance would be invidious. And yet a random mention of a few movements to which Teachers College has

lent its powerful support and some of which it may be said to have originated seems necessary in order to indicate the quality and scope of the intellectual and moral service it has rendered in lending direction to American education. There come to mind the development of measurements and tests; the project method; school surveys and study of administration; the transformation of kindergarten theory and practice; the nursery school and the scientific study of pre-school children; domestic science and art and the placing of education of nurses on a more dignified and self-respecting, because more intellectually responsible, plane; contributions to industrial training and vocational guidance, to rural schools, to Americanization through education, to religious education, to international phases of education, —but why continue? The things mentioned are not spoken of by way of mere congratulation, but as indications of the way in which an educational institution can give voluntary and unofficial direction to an otherwise confused and dispersive scene. Your own minds will readily supply the further illustrations needed to complete and solidify the suggestion.

Although no one a generation ago could have possibly predicted the development of the last thirty years, it is not too much to say that the work is only in its initial stage. Certain things have been demonstrated. It has been proved that education is a proper field for scientific research; that it ranks with any subject as a proper and richly rewarding topic for university study; it has been redeemed from the academic contempt that so long was felt toward pedagogy; especially has its fruitfulness been demonstrated as a means of correlating a vast variety of specialized topics and interests, scientific and social, so as to bring them into vital unity in a human and humane perspective. The training of teachers is no longer a mere matter of equipping students, having a somewhat inadequate prior intellectual preparation, with the means by which to deal with the immediate problems of the schoolroom. The simple discovery that education is first of all a problem for study, for investigation and research, and a problem so complex and diversified as to demand prolonged and thorough training, marks in itself almost a revolutionary departure from the older attitude.

Indeed, I should be willing to say that this discovery is that which gives Teachers College its distinction. Important as are all the spe-

cial contributions that have been alluded to, the recognition of the necessity of regarding education in all its phases as an intellectual problem, a philosophical and scientific problem, is the most important. For the attitude contained in this recognition has been the inspiration of these movements and the source of their directive value. To remove education from the plane of opinion, tradition, and routine and to place it upon the high plane of intellectual worth and dignity is no easy task, and it will not be accomplished in a generation. The idea that activities like medicine and agriculture are proper fields for scientific exploration and that they can prosper only when conducted upon the basis of the conclusions of patient and prolonged inquiry has pretty well made its way into popular consciousness. I do not think a similar statement can be made as yet regarding education. The air is full of glittering generalities and of sentimental appreciation of its supreme importance, but not of steady and definite realization of its significance as an intellectually grounded art. This fact is natural. Education is the most complex, intricate, and subtle of all human enterprises. Its intellectual emancipation and elevation was compelled to wait until other inquiries and sciences, physical, mathematical even, as well as social and psychological, had developed to the point where they could make their contributions. In consequence, the art of education will be the last of the arts to come into its own scientifically.

The pioneering stage of this great idea is not past. This fact is an inspiration, for this stage in any subject is that of greatest ardor and utmost devotion. I congratulate the staff and students of this Institution upon the opportunity and the outlook. You are here at a critical juncture. The idea that education is a field of study, observation, experiment, and inquiry has been already demonstrated. It remains not only to continue the development of all the special investigations incident to this fact, but to bring the public to the appreciation of its full significance, to make its force felt in every aspect and phase of educational endeavor. I like to think that there is a happy omen for the continued development of this ideal in the instance of academic apostolic succession we are celebrating here to-day. The paternal–filial relationship seen in the change of deans may well symbolize the moving life of Teachers College itself. As one of the older teachers among you, I wish to express my deep

sense of the honor I experience in being associated with this ceremony. I like to imagine this association to be also a link in the continuity of the life of this great Institution. A long-time friend of the father, it is a happy duty to welcome the son, as a former student, a long-time colleague and, I am sure, a permanent friend, to the responsibilities, the joys and burdens, of his office. You know, without my saying so, Mr. Dean, that in meeting the responsibilities you will have the heartiest coöperation and support of all your colleagues, the students, and the alumni. And the latter, the staff, alumni, and students, also know without being told that you bring to the execution of your duties the spirit of humanity, of quick and responsive sympathies, combined with full integrity of purpose and a widely cultivated scientific outlook. We bid you affectionate Godspeed and take hope and courage for the future.

# THE PHILOSOPHY OF AMERICAN EDUCATION*

By WILLIAM H. KILPATRICK
*Professor of Education, Teachers College*

THERE is, of course, no one philosophy of education to be ascribed to America. There are, however, certain tendencies more or less consistent with each other which, taken together, may with reasonable accuracy be said to characterize the dominant American attitude in educational matters. Such tendencies the philosophy of education should sense and criticize with a view to securing a more defensible unity of outlook and endeavor. Beyond these characteristic trends there will thus result individual philosophies. One such is here presented.

The account here given is necessarily but sketchy. At the outset a glance is taken at the background and source of American educational problems and attitudes. Then follows an outline of the basic philosophy of education with a correlative discussion of certain more fundamental problems in the educational situation. It is but fair in connection with this to say two things—first, that the author of these lines is but one of a group, of which Professor Dewey is the most distinguished member, to hold in general to this position, and, second, that to various aspects of the position herein taken there is opposition from certain other groups in American thought. The reader will understand that the writer speaks then only for himself.

What is the background of American thought and attitude? A hasty glance at this will serve to orientate our thinking and at the same time to set before us some of the more insistent problems confronting American education.

Perhaps the most characteristic factor in American history has been the influence of frontier life, the necessity of subduing a wilderness on its own terms. For this European tradition did not suffice. New ways must be found. Strong individual self-direction was

* An address made at Teachers College on April 16, 1928, to a group of German educators visiting America.

needed, a reliance on self and on small group coöperation. Through successive generations characteristics of initiative, self-reliance, and face-to-face coöperation were built into the folkways, along with an impatience at restraint of practically any sort. These characteristics meant a ready acceptance of the conscious doctrines of liberty and of the more doctrinaire theory of laissez-faire. The last-named might almost be said to be the sophistication of all the rest, a principle, however, from which America now increasingly departs. Religiously, the early settlement was in outlook almost entirely Protestant and even Puritan, a fact which has given the national outlook a definite tendency toward external regulation of morals and conduct.

It is easy to see democracy as the political outlook natural to the Protestant and the frontiersman, and this in spite of the contradiction between moral regulation and frontier freedom.

The later half of American national life has seen great changes, possibly more sweeping than any hitherto found within the range of European culture. Streams of foreign immigration have poured in from many diverse sources, breaking up the older uniformity of outlook and introducing a new need for social integration. Industrialization has come almost as a flood, with an unparalleled mass production. A popular faith in scientific thought has spread over the country, partly as cause and partly as effect of industrialization. The mingling of different national cultures, the changes introduced into living by great industry and its products, the opportunities at indulgence from increasing wealth and leisure, the popular faith in science and its criticisms—all have united to shift old folkways and to question traditional outlooks. The resulting problems cut deep.

Amid all these changes, one faith of America stands firm with even clearer idealism—that in popular education, secondary no less than primary. In favored sections practically all adolescent population is enrolled in secondary schools. Popular education is almost pathetically the hope for directing civilization along right and better lines.

In facing thus its task, American education sees a people buoyant in the faith that effort counts and willing perhaps beyond all others to try the new. The situation is plastic to thought. Ideas, at least within a certain range, spread more rapidly here than in any other part of the world. The opportunity of the school to influence life is real and great.

No less real or great is the demand. The loosening of tradition, here as elsewhere in the world, raises serious questions. Youth increasingly rejects external authority. Our only hope seems internal authority based on an inherent "Why?" Still further, increasing change in general social life makes it increasingly impossible to conduct education on the old basis of specific preparation to meet foreknown situations. The future is too largely unknown. We of the older generations must acknowledge our lack of foreknowledge and somehow prepare the rising generation to face its own problems as these shall arise. To fix our present ideas in the young may prove hurtful disservice. Education must remake its ways to meet these new demands.

In the face of the insistent need for an intelligent re-thinking of our social tradition, we have nevertheless in this country many who exactly fear this re-thinking and wish to prevent it. They rightly fear that thinking may not justify and retain all they have hitherto held. These opponents of progress are able to mobilize a certain herd-mindedness and with it seriously to oppose the free and impartial weighing of questioned doctrines and institutions. It has even been proposed to maintain the old by legal prescription. Education is thus threatened in its own house. Democracy has been tempted to hamper teaching.

The task of the school is thus increased. But there is yet more. A civilization loosed from its old moorings, industrially efficient and wealth-producing beyond compare, faces the ever old, ever new problem of life itself. What is the life we should intelligently seek? If we do not know an answer to this problem or if the majority will not recognize the best answer thus far found, what shall the school do? What can the school do, seeing that it is controlled by this same majority? This is perhaps the most difficult of all the problems facing American education.

The general attack upon these problems here presented and defended may be stated in two parts; first, the more fundamental assumptions taken to underlie a defensible outlook on life, and, second, the educational superstructure built upon these assumptions specifically to meet the problems of American life as set out above.

These as fundamental assumptions are here stated in brief, even dogmatic fashion. They are to be counted as hypotheses for understanding and ordering life.

*a.* Criticized experience is the final test of all things—experience criticized in its bearing on other experience. From this point of view, knowledge and "principles" are hypotheses for guiding experience.

*b.* The universe is fundamentally precarious. But effort produces real effect. Thinking is past experience guiding present effort. Through thought man is self-directive and effective in a sense and degree true of no other organism.

*c.* No principle is absolute but each such is to be applied only in the light of all other principles involved in the situation under consideration.

*d.* The self is an organization effected through continued experience in the social situation, the beginning being in biologic heredity, communication playing an essential part. The individual is thus inherently social in origin and nature.

*e.* The good life is one of activity of the varied capacities of the person so managed as to continue and increase such activity, both individual and shared, in the self and in others. We seek then the maximum development of each in relation to all, each as an end in himself and never a means merely.

From the foregoing, particularly the last two, we get definitions and guiding conceptions of development, ethics, and democracy. Development is no mere unfolding of latency, but an ever-extending process (stopped only by senile decay), taking continually more and more adequate account of meanings disclosed through experience. Such growing is of the very nature of the good life. Ethics gets its definition in the effort to bring this good life in the highest possible degree to all together. Democracy, much more than mere government, is the kind of society built to favor this good life and the maximum development.

With these as the more fundamental conceptions, what shall be the system of education reared on this foundation to take adequate care of the demands of American life?

In describing the proposed scheme of education, it is perhaps well to warn the reader that certain older terms as method and curriculum have been re-defined for use here that they may the better carry the new burdens placed upon them. The new definitions appear more or less explicitly in the descriptions given below.

In the resulting scheme of education, method takes a leading part, possibly the dominant part. Method is the *how* side of the educative process, but is far more than *how* to teach arithmetic or the other subjects. Rather it is *how* to deal with children, *how* to help steer the whole life of the learner that all aspects of life may be more adequately called into play and more adequately directed so that integration will result, internal integration of the self, external integration of the self with the environment.

The psychology we follow tells us that learning is essentially active. Behavior is responding and we learn only the responses that we make, no others. We cannot learn what we do not practice. If this be so, then the schoolroom environment must be such as to evoke from the learner the varied desirable characteristics which he is to build. To accomplish this school must be actual life, not a mere learning about life. It is selected life, yes; but so selected and steered as to have in it all the riches of real living, its stimulations, its opportunities, and its responsibilities. On no other basis can the child build the kind of self demanded by the highest conception of the good life.

But our psychology tells us further that we do not learn all the responses that we make. There is a selective effect on learning, as the outcome does or does not satisfy our endeavor. In any actual instance we learn *to do* what meets the case for us, we learn *not to do* what fails to meet the case. The learner's attitude is thus an essential factor to determine the direction of his learning, whether he shall learn *to do* or learn *not to do.*

It is from this point of view that the factor of purpose comes to be stressed in the educative experience. When the learner has a purpose of his own which he himself wishes to effect, whether, for example, to make a boat, or to write a poem expressive of a certain emotion or idea, or to join with others in presenting a play, he has not only an impulse which efficiently calls out his endeavors along the line of his purpose, he has besides (in the aim held thus in view) a criterion for telling success from failure, and even more he has (in his willed purpose) the inner attitude which identifies the objective success of the enterprise with inner success to him. So that all the psychology of learning discussed above is through purpose automatically put to work in behalf of better learning.

Nor is this yet all. A study of the psychology of behavior dis-

closes that behavior and effort arise when some equilibrium is disturbed within the self or organism. This disturbance creates an organic urge or "mind-set" to straighten out the difficulty, to set matters straight. This urge or "set" involves the whole organism. When through thought the self sets up in imagination an end or aim the attainment of which defines satisfaction and the re-establishment of equilibrium, then the whole organism being involved all its resources pertinent to the attainment of the end are thereby rendered "ready" for action. The eye is quicker to see anything pertinent to the quest, the ear quicker to hear, the hand quicker to act. Action is thus facilitated in detail and learning quickened. In this, purpose again helps.

And there is yet more: Always many learnings are simultaneously in process. While any extended experience is under way, attention is directed now to this factor and now to that, especially as these factors help or hinder the aims that the experiencer has. Where any element or factor in the experience is thus such as to arouse conscious attention and consideration, with consequent like or dislike, for each such factor at least two learnings and generally three are in process: first, an attitude of like or dislike is being built (and if sufficiently keen or sufficiently prolonged or sufficiently repeated an abiding attitude will be built); second, an idea of the factor at work and how it acts is being built (or strengthened or weakened if such has already existed); and, third, there is generally being built also an ideal as to what should be the character and action of this factor. With such an attitude and idea or ideal always being built with regard to each outstanding factor involved in the experience, and with the admitted significance of attitudes and ideas for life, it needs no argument to prove that such accompanying learnings are in the aggregate often more important than the learnings more obviously in the mind of teacher and pupil. In this way through infinitely many small effects children come to build their abiding attitudes and ideals towards the various significant aspects of life. Fortunate are they if the resulting ideals are clear and good and the attitudes sound. And here again purposing may greatly help. It requires little thought to see that when the purpose is itself sound and wholesome and intelligently sought, ideals will the more likely be intelligently built and attitudes favorable to them be built in accord.

So in order to build self-directing characters that can be relied upon to act intelligently and efficiently, the method of purposeful activity is stressed. Properly guided it makes for efficient learning and for efficient organization of learning and builds at the same time the kind of character needed to cope with the changing life that confronts. This is what is often called the "project method" or the "project idea." The essence of the idea is that the unit element of the educative process is to be conceived as an enterprise (or instance of purposeful experience) felt by the learner to be his own so that he of himself assumes responsibility for carrying it forward to successful completion.

The terms "free" and "freedom" are often used in connection with such purposeful activity. It is at once clear that freedom is here desired as a condition necessary for such prosecution of the enterprise as best fosters good learning conditions. The function that freedom thus plays tells us not only why we wish freedom but tells us equally how much and what kind we need. The test is always: What is being learned?

Such a conception of method as the purposeful and responsible pursuit by pupils of enterprises characteristic of all the varied aspects of life will mean that subjects such as geography or history will no longer be learned separately. This method recognizes what is in fact true, that our various separate school subjects are adult sophistications, abstractions of and from life, not units in life. Genuine instances of living seldom remain long at a time within the artificial confines of such abstractions. Typically then we as teachers will ignore such boundaries, as we help our pupils to live in our schools.

We are thus led to consider the curriculum. It is but fair to say that there is at this point even less agreement among our people than on method. The position here presented is not the traditional one but one so chosen as to place education more inherently in the life process. It is, of course, true that in the history of the race education long preceded the school. If we consider out-of-school living, say of a child before going to school or of any man of affairs as he faces a novel situation, it is easy to see how learning is inherent in each forward step made in such living. Take, for instance, a child first attempting to feed himself with a spoon. Five steps are distinguishable: (1) he starts to feed himself; (2) he meets (typically) a

difficulty, he lacks the needed behavior-skill; (3) he tries under the direction of nurse or mother to get the needed way-of-behaving; (4) at length, he finds, gets, and applies the hitherto lacking behavior-skill, the needed new way-of-behaving; (5) the activity begun under (1) and balked under (2) now goes forward. These steps are typical wherever life takes a step forward. We see then (*a*) how the demand for learning is inherent in progressive living; (*b*) how study, item (3) above, is for each individual an effort at the finding of a new way of behaving in the light of the demands of the situation and possibly under the guidance of one who can help steer the process; (*c*) how learning when thus got is essentially a creative act, even though the act is in part guided by another; and (*d*) how the actual situation tests whether the learning has in fact taken place by whether the balked activity really goes forward, whether the proposed new step is really taken.

We can at once say of such life learning that it is *intrinsic* in life, having a real function to play in the development of life. In comparison we can say that much, if not most, of ordinary school learning is *extrinsic* to the life of the learner, not having been called for by the present demands of his life as he now lives that life nor, when learned, functioning in any full sense in that life as it now is. This distinction between "intrinsic" and "extrinsic" learning is crucial to the present discussion. The position here taken is that school learning is good and wholesome, other things being equal, to the degree that it is intrinsic.

It is well to see further how learning functions inherently in the on-going and developing life. Consider a baby that has just learned to crawl. Clearly he has added a new way-of-behaving to his previous repertoire of behavior patterns. But the effect is far more and other than this mere addition. Before times when he has been placed on a rug, for example, he has necessarily stayed where he was placed. His active experiences were then limited to what was within reach of the fixed spot where he had been placed. But now that he can crawl he has greatly increased the range of his possible experiences. And each new experience brings with it new things to be learned. This he may touch, that he may not; this he may put in his mouth, that he may not. When he does put this in his mouth, it calls for thus-and-such behavior. All of these new learnings—facts, sense-

experiences, appropriate reactions, social obligations—all have been made possible and even called out by the single added learning of how to crawl.

Not all new learnings are so prolific of new experiences and new learnings, but in general each new thing learned opens in some measure new possibilities. The remaking of experience from such learnings is what Professor Dewey has called the "reconstruction of experience." We are then prepared for his definition of the aim of education as such a reconstruction of experience as yields ever new meanings and gives to the learner continually increasing control over the process.

From this point of view the curriculum is not properly conceived in terms of the subject matter to be acquired but as a life process, a succession of experiences, each growing out of the preceding experiences in such a way as to continue most fruitfully the reconstruction of experience. At any point taken as a beginning, the teacher will then help his pupils to choose as their next experience one that is both rich as present living and pregnant with promise for the future. While this experience is being lived, the teacher will help so to steer it that it will mean most in continuous succession for rich living thereafter.

Space does not allow a detailed discussion of criteria for choosing experiences nor of immediate aims as we try to steer any present experience. Besides these are also many other matters to be considered, as how to secure sufficient skill and techniques, and how to avoid one-sided growth. Important as these are they are minor to the revised conception of the curriculum here outlined. Such a revision is as the shift from Ptolemy to Copernicus. The center of attention is shifted from subject-matter to life, from inertness to dynamic life and its remaking. Such a conception puts the emphasis on life and personality, on the increasing self-direction of life in the light of an ever-broadening outlook and deepending insight.

One concluding word about morals and religion. Many of us in this country, most I think of those who speak most authoritatively in education, feel that morals has no need of support in dogmatic theology. For my part what is said above, properly understood, will care inherently for morals and religion better than will any scheme of separate lessons in either or both. Surely morals and religion in

any defensible sense lie at the heart of the life process. When we care properly for life and its education we care properly for them. The name of either need then not appear as a separated item in the school program. If we take pains that life's meanings are got as best we can from each succeeding experience, all is done that man can do.

Such seems the American situation. Such is the philosophy proposed for its understanding. Such is the education suggested for meeting the situation. If merit it has, this lies exactly in its being thoroughout experimental. On this basis only dare we face our changing future.

# THE AMERICAN SPIRIT IN EDUCATION*

By I. L. KANDEL

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THE student of American education, whether native or foreign, who neglects to investigate the background against which this system of public education has grown will inevitably fail to understand its real meaning and purpose. He can readily acquaint himself with the organization and administration of the school system which is after all a simple affair, but to see these in relation to the fundamental bases of Americanism and the American spirit is to throw a flood of light on the picture and to bring out in bold relief its main characteristics. This is in particular essential for the foreign student who too often carries away a blurred view because he is apt to look on American education in the light of European standards. At the present stage of the development of education in European and other countries that are inspired by the recent emergence of the democratic ideal, it is especially essential for the foreigner to understand the principles that have motivated the establishment and growth of the American system of public education.

The characteristic that is uppermost, starting with the period of colonization and strengthened during the Revolution, is the emphasis on liberty or self-determination which has been adopted as the national ideal. Under the influence of conditions underlying the struggle for the conquest of the frontier, this ideal was broadened and expanded with an emphasis on individual liberty and democracy. This "vehement passion for liberty," as Bryce called it, led to a clear and well-defined passion for democracy—a government of the people, by the people, and for the people.

Many of the ideals which underlie American character arose out of the pioneering conditions of the frontier. On the good side these conditions demanded resourcefulness and self-reliance, equality of

* An address made at Teachers College on April 16, 1928, to a group of German educators visiting America.

individuals, and at the same time ability to coöperate for the common good. But the same conditions also gave rise to certain weaknesses in American character, the most outstanding of which are wastefulness of unlimited resources, contempt for experts and for organized administration, a literal interpretation of democracy which too often emphasized the individual's rights and ignored his duties, led to rotation of office, and short terms (and often short shrift) for officials. Impatience of restraint, law, and government was another residuum of this conception of democracy. At the same time this conception and the slow expansion of the country in small communities westward combined to develop a spirit of localism and a desire to retain the control of municipal affairs in local hands. The tremendous opportunities (*unbegrenzte Möglichkeiten*) of the country developed in the American that restless, nervous energy, that buoyancy of spirit and optimism which are the first characteristics noted by the foreign observer. Frontier conditions again were responsible for another characteristic—the emphasis on the practical and on immediate returns, an emphasis which, on the one hand, tended to look with suspicion on theory and, on the other, developed the attitude that only those ideals are worth while that can be made to work.

The conception of democracy in terms of individual rights had its corollary in the ideal of equality of opportunity, which was only strengthened and reënforced by the mingling of races and peoples that immigration brought to this country. This ideal perhaps more than any other has served as the keystone of American democracy. All the factors analyzed up to this point contributed to bring about that constant restlessness that broke down conservatism and the worship of tradition, and led to those standards and attitudes that differentiate the American outlook from the European.

What are the American ideals? The first is the ideal of democracy and pride in its institutions. In its practical implications for American life this ideal has as its fundamental basis the emphasis on equality of opportunity, tolerance in religion, politics, and social affairs, and opposition to the restraint of law and custom. With the last trait the foreigner has unfortunately adequate opportunities to become familiar. And if the foreigner can point to examples in which the ideal of tolerance is honored in the breach, all that can be said is that the explanation of these aberrations belongs to the field

of social aberrations and that they do not typify the normal American mind.

The second ideal is that of individualism which is at once the result of the ideal of equality of opportunity and its guarantee. But equality of opportunity implies at the same time the duty of the individual to make the best of himself and both demands and calls out qualities of individual energy, initiative, self-reliance, and enterprise. It is this conception of individualism and this attitude to equality of opportunity that have led in this country to the scorn of idleness and contempt for the useless citizen, in a sense not unlike that used by Pericles in his characterization of the good citizen. It is in this attitude that the foreigner will find an explanation of the recognition of the dignity of labor, when he is unable to reconcile the combination of study and the student's earning his way through his period of study, or when he cannot understand the ability of the country to absorb in the work of everyday life the large product of our academic institutions.

The third ideal is the ideal of social and community service which calls for readiness to coöperate for the common good. This ideal is frankly a latter-day development due in part to fear of paternalistic government, in part to a more recent redefinition of the notion of democracy. The nineteenth century, in this country as in England, preached the gospel of the rights and freedom of the individual; the twentieth century already indicates that the emphasis will be on a gospel of individual obligations and responsibility. In its practical implications this means the conscious assumption on the part of the individual of the duty to participate in the common needs of society and to live a life of service and social usefulness.

Reference has already been made to the foreigner's picture of the American as an individual of restless energy. He is also apt to list materialism among the outstanding traits of the American. Such materialism he readily defines as money-grubbing or dollar-mania. It may well be questioned whether the characterization or its interpretations are fundamentally sound. This trait again was a natural outcome of the conquest of the frontier, which after all was only achieved as recently as 1890. Fundamentally, the materialism with which the American is charged is but a sensitiveness to things that touch his own life immediately. The American is still largely occupied, if not with

the conquest, at least with the organization of his environment. He does not, like the European, have centuries of custom and traditions that shape his life. He deals with material things and his measure of values is quantitative. If he expresses these values in dollars and cents, he is but reducing them to a common standard that all can understand.

The American is in fact imaginative but not visionary; unlike Bernard Shaw, he holds that an ideal that *cannot* be attained "is not worth a damn." His imagination plays round practical affairs and round the daily concerns of life and is limited in the main to ideals that are practicable. If he has inherited anything from his past, it is his constant belief in the perfect ability of man and of human institutions. He is, as he would himself put it, confronted with a condition to be solved and not with a theory to speculate upon. Money-grubbing and dollar-hunting alone would not account for such a philosophy of life.

It is in such a background alone that one can find an explanation for the fundamental principle on which this system rests—the provision of equality of opportunity in education for all at public expense. This principle implies in its operation more than the opportunity to attend schools; it implies in its practical development, especially in the last twenty years, an education to each according to his interests, aptitudes, and abilities. Another consequence, this time of the imaginative restlessness that has been mentioned, is that the aims and organization of education are in a fluid state of transition and experimentation, not as in European countries to discover new methods for better imparting the traditional culture, but to reconstruct the concept of culture or of liberal education and to adapt it to modern demands and conditions. Undoubtedly such a culture when developed will have to turn back for its justification to the cultural heritage of mankind, but, for the present, foreigners (and, it may be said, many Americans) do not realize that such groping and experimentation, symptomatic of a period of transition, are apt to be misinterpreted and to lead to conclusions not at all intended. This period of transition again began somewhat less than twenty years ago.

Beyond this the foreigner will note that the emphasis in education is not on knowledge for its own sake nor on the amassing of facts and

information, but on the use of knowledge for the development and cultivation of intelligence and for training in ability to think and to judge. Because he attaches value to individuality, the American educator starts not with abstract notions of what knowledge is of most worth but with the pupil's own experiences that are to be reconstructed and made over under the guidance of those other ideals that have been analyzed for the development of a sense of personal duty and responsibility that will lead not only to the development of personality but will result in a feeling of obligation to the group and to society. The American method of progress may be slow; the organization of education may lack the uniformity and smoothness that characterize national systems that are carefully planned in conformity with some metaphysical concept of the state; but in its variety, in its ragged appearance on the surface, it accepts implicitly the notion that society can be no better than the individuals that make it up and for that reason its characteristic emphases lie on the individual and on the ideals of twentieth century democracy, thus linking the educational evolution with the principles on which American life is based.

# MEASURING THE INTEREST OF TEACHERS IN THEIR WORK

By HARRY DEXTER KITSON
*Professor of Education, Teachers College*

ALTHOUGH a considerable amount of energy is being expended in the search for methods of detecting the so-called "vocational interests" of young people, very little attention has been paid to the problem of determining how deeply persons who are already at work are interested in their vocation.

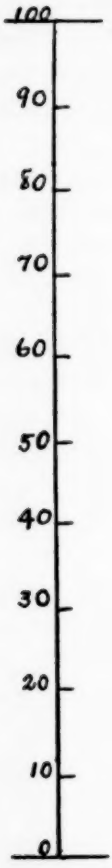


FIG. 1. SCALE OF MEASURING INTEREST IN ONE'S WORK

Common observation shows vast numbers of people who are utterly uninterested in their work and many others whose interest is only lukewarm. In connection with the vocational survey of Richmond, Virginia, conducted in 1915, forty per cent of the workers interviewed said that they were in a line of work unsuitable and uninteresting to them. Of men who came to the office of the vocational counsellor of the Brooklyn Y.M.C.A. seeking advice, forty per cent said they were dissatisfied with their work and would like to get into another occupation. The same number were reported from the office of the vocational counsellor in the Y.M.C.A. of Milwaukee. Aside from these figures, there are almost no facts that show the degree to which lack of interest in one's work is present among the forty-seven million wage-earners in the country.

Naturally, before a measure can be obtained one must develop a method. As a start in this direction the writer has evolved a technique and has made a preliminary ap-

plication of it which seems to show some promise. The method is very simple; it consists of an interest scale ranging from 0 to 100, divided into ten steps. (See Figure 1.) On this scale the worker is asked to indicate the degree of interest he has in his occupation—not his present job but the vocational field in which he is working. Since this judgment is naturally subjective, the attempt is made to define the top limit with some degree of objectivity. The subject is asked to consider as the 100-degree point that activity in which he would spend his major time if he had a million dollars and did not have to work; then to estimate the distance down the scale which represents his interest in his present occupation.

Although the method is admittedly subjective, as all self-observations must be, almost everybody who has measured himself on the scale has reported that he was reasonably well satisfied with his estimate.

TABLE I

DEGREE OF INTEREST AND LENGTH OF TIME SPENT BY TEACHERS IN THE OCCUPATION

| Group | Number | Degree of Interest | | | Number of Years | | |
|---|---|---|---|---|---|---|---|
| | | $Q_1$ | Median | $Q_3$ | $Q_1$ | Median | $Q_3$ |
| Elementary School Teachers (Women) | 67 | 80 | 90 | 100 | 5 | 11 | 16 |
| High School Teachers (Women) | 247 | 90 | 90 | 90 | 5 | 10 | 14 |
| High School Teachers (Men) | 95 | 80 | 90 | 100 | 3 | 6 | 17 |
| Total | 409 | | | | | | |

The first attempt to use the scale was made with 409 teachers. Besides measuring themselves on the scale, the teachers were asked to indicate the number of years they had taught, the subject in which they specialized, and the division of the school system in which they were engaged. Names were not signed. Sufficient data to be used statistically were gathered from three homogeneous groups—women teachers in elementary schools, women teachers in high schools, and men teachers in high schools. The data are shown in Table I above.

The median degree of interest in each of these groups is 90. According to the conditions of the investigation, this is to be interpreted as being ten points (on a scale of 100) away from the thing

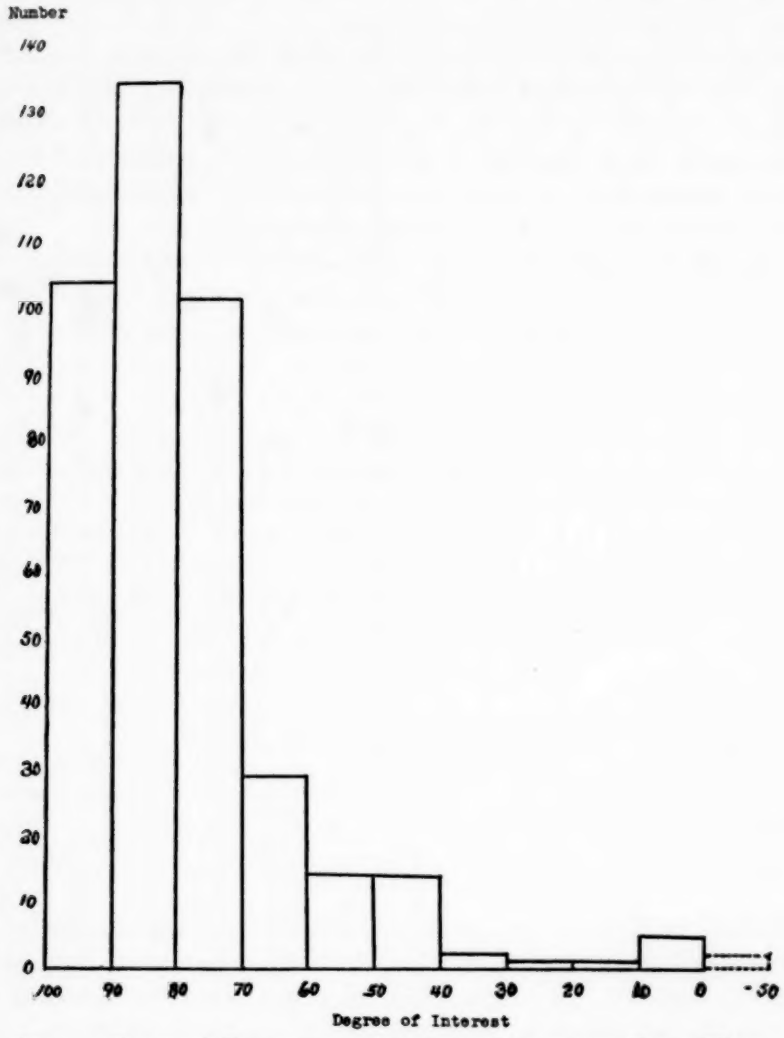


FIG. 2. TEACHERS' ESTIMATES OF DEGREE OF INTEREST IN THEIR WORK

these teachers would most like to do. The deviations, in terms of $Q_1$ and $Q_3$, show that fifty per cent of the cases fall between 80 and 100. The distribution is shown graphically in Figure 2. Twenty-

five per cent placed their interest at 100; the greatest number of these were teachers in elementary schools. Thirty-three of the latter said that they were interested in their occupation to a degree of 100. Only seventeen per cent of the women teachers in high schools expressed an interest of 100 degrees.

At the other end of the scale were three persons who said their interest in teaching was zero. Two more conveyed their disgust with the occupation by using the figure 50 below zero.

As was said above, the teachers were asked to state the number of years they had been teaching. This information was sought with the hope of discovering if there was any relation between degree of interest and length of time spent in the occupation. The results (see Table II) are grouped so as to show the median number of years served by teachers at various levels of the interest scale.

These computations show that, in general, the teachers with the highest degree of interest had been engaged in teaching the longest period of time. The thirty-three elementary school teachers who were

TABLE II

RELATION BETWEEN DEGREE OF INTEREST AND NUMBER OF YEARS SPENT IN THE OCCUPATION

| Group | Number | Degree of Interest | Number of Years | | |
|---|---|---|---|---|---|
| | | | $Q_1$ | Median | $Q_3$ |
| Elementary School Teachers (Women) | 33 | 100 | 8 | 15 | 20 |
| | 13 | 90 | 4 | 10 | 16 |
| | 13 | 80 | 6 | 10 | 14 |
| | 3 | 70 | 2 | 3 | 9 |
| High School Teachers (Women) | 43 | 100 | 6 | 11 | 16 |
| | 94 | 90 | 5 | 8 | 13 |
| | 62 | 80 | 5 | 10 | 14 |
| | 17 | 70 | 5 | 8 | 11 |
| High School Teachers (Men) | 28 | 100 | 7 | 9 | 14 |
| | 19 | 90 | 3 | 6 | 12 |
| | 23 | 80 | 3 | 6 | 13 |
| | 9 | 70 | 3 | 5 | 10 |

interested to a degree of 100 had served a median of fifteen years; those on the 70-degree level had served a median of three years. While the latter cases are few in number, the tendency is clear in this group as in the other groups. The relation between degree of interest and length of service has been shown still more strikingly by another sort of computation. The teachers in elementary schools were arranged according to length of service, and the average degree of interest was computed for the upper and lower quartiles. Those who had taught 16 years or more had an average degree of interest represented by 92, while those who had taught 10 years or less had an interest of only 75 degrees.

Whether the teachers of long service have become more interested by the passing of years, or whether they originally had such interest that it caused them to remain in the occupation a long time, can not be ascertained from these figures. The fact remains, however, that we have here a very clear indication that degree of interest in the occupation is related to length of service in it.

Figures from men were kept separate from those obtained from women in the hope that whatever differences might exist between the sexes might be brought out. The figure representing median degree of interest was 90 in both cases. A slight difference appears with respect to length of service. As shown in Table II, women teachers in high schools had taught a median of ten years while the men had taught only six years. The variability among the men was higher than among the women.

The number of women teachers in high schools was large enough to warrant grouping them according to the subjects they were teaching. Six such groups were formed: teachers of English, home economics, fine arts, mathematics, history, and commercial subjects. But no difference with respect to degree of interest appeared.

*Summary.* This attempt to find a way of measuring a worker's interest in his occupation has resulted in a ten-step scale ranging from zero to 100, on which the worker can indicate his degree of interest. True, the measure is subjective and is therefore susceptible to certain weaknesses. Still it is hard to conceive of an objective scale on which to make this measurement. Persons who have used the scale report that they are fairly well satisfied with the accuracy of their self-measurement.

The use of the scale with a group of 409 teachers has shown that it serves to differentiate workers in this occupation. The measures ranged from 50 degrees below zero to 100 degrees above, with a median of 90. This figure would seem to indicate that these teachers are interested in their occupation to a high degree, especially in view of the fact that one-fourth of them placed their interest in teaching at 100 degrees, and the groups at 100 and 90 numbered fifty-seven per cent of the total.

The investigation also shows that teachers with a long term of service are more deeply interested in their work than teachers with a short term of service.

It would be desirable to use the scale on workers representing other occupational groups, such as salesmen, machinists, ministers, etc., in order to see if some groups are more deeply interested in their work than others. This the writer hopes to do in the future.

# LESSONS IN OUR SCHOOLS

## No. II

## A LESSON IN GEOGRAPHY

By EDWIN H. REEDER

*Associate Professor of Education, Teachers College*

THIS is the second in a series of articles by Professor Edwin H. Reeder on practical classroom teaching. Each article consists of a description of a lesson observed by the author, and his comments upon it. These comments indicate what he considers the points of strength and weakness, and the educational principles involved are discussed. The first article in this series, "A Stereopticon Lesson," appeared in THE RECORD for May, 1928.—EDITOR.

EDUCATIONAL theory is to-day struggling with a problem of great import to the elementary school teacher. It is this: What shall we do with the recitation period? For twenty-five years theorists have trained their verbal artillery upon the old conception of the recitation period as being a time when the pupils were expected to "say their lessons." It has been ably proved that, as a method of testing each pupil's knowledge of the entire lesson, the recitation is and will ever be pitifully inadequate. It has been demonstrated that the recitation period proves a bore to the bright child who is not called upon very frequently because he knows the lesson anyway, and a source of even greater discouragement to the dullard who is pretty certain to fail miserably when required to recite. It is agreed that the recitation period, by keeping all the children together in their progress, does violence to our theories of providing for individual differences in interests and aptitudes. Altogether, the old conception of the recitation period has been weighed in the balance and found wanting.

In spite of this attitude of theorists, anyone who visits schools is forced to the conclusion that the situation we are discussing exists to-day in a vast number of our schools in much the same form as it did when we were school children. Children still prepare their lessons and recite them—not, to be sure, in concert as was largely done

at some stages in our educational history; but the visitor who looks for progress which is commensurate with the soundness of the theorists' attacks on the recitation will be sorely disappointed.

One reason for this situation is the lack of agreement among educators as to what shall be done about it. One group would do away with the recitation entirely, and devise such forms of work assignments as will allow every child to progress at his own rate of speed. Another group would "socialize" the recitation by allowing a child to take charge of the work. The writer has no quarrel with this group, provided there is real socialization, and not mere substitution for the old form of a cut-and-dried procedure worked out in advance by the teacher, or of questioning by a child of a type similar to but less efficient than that usually done by the teacher.

Many years ago, a great educator suggested the idea of making the recitation period a thinking period. Much enthusiasm for this idea has developed, but the idea itself does not suggest a *modus operandi*. Many absurdities have been perpetrated under the banner of this idea; children have been adjured by teachers to *think* without much help as to what to think about. Thinking implies a question, a doubt, a lack of sureness, and how could these exist when all one needs to know is written in the textbook ready for absorption! One might as well advise the child to chew hard on soup.

This whole question was brought forcibly to the attention of the observer a few weeks ago when he visited a fifth grade geography class. The teacher began her work with the question, "What problem are we now working on?" A show of many hands followed and the child who was called upon responded, "The Mississippi Valley." "And what have we learned about it?" pursued the teacher. Again there was much waving of hands and five or six pupils were called upon, each giving some fact which had been learned. The sum of information in the replies was considerable; it included the number of states drained by the river, the population in the valley, the value of the crops raised here and their names, the enormous quantities of sediment carried down the river each year with the consequent lengthening of the delta, the use of levies, and the fact of the flood last year with the consequent loss of lives and homes.

This review took about half of the period. At this point one of the boys said that he had read that a long time ago—at least one

hundred years—the gulf of Mexico extended up to the mouth of the Ohio River and that the Mississippi River had built in the land from there south to what is now the Gulf of Mexico. This idea evoked some little discussion as to whether one hundred years was a long enough time for so great a change; no conclusion was reached except that it must have been longer than one hundred years because our nation is over one hundred and fifty years old.

The teacher then wrote on the blackboard at the dictation of the pupils the names of the crops raised in the region and discussed which ones were most seriously affected by the flood. This led naturally to a discussion of the seriousness of the flood and what ought to be done about it. There was some discussion as to who ought to pay for flood prevention and why, and the recitation ended with the statement by the teacher that she had an excellent article written by a well-known geographer as to the causes of the flood and the best way to prevent a similar one in the future. She asked for volunteers to read the article and report on it at the next class meeting. A number volunteered and the teacher said she would let as many read it as had time.

This recitation is fairly typical of many that the observer has seen. Let us note first that there is no question of the fact that there was real geography in it. The children were dealing with important geographical facts and ideas and were being exposed to subject matter which will make them more intelligent citizens of our country. Moreover, there was a delightful spirit in the classroom; there was no tension, the children enjoyed their work, and their attitude toward the teacher and hers toward them was natural, unaffected, and friendly. Most of the pupils participated at some time in the recitation, and all seemed interested throughout. From the standpoint of such relationships, as well as from that of the importance of the subject matter involved, this lesson would rank well above that which is characteristic of the average classroom.

A critic of the recitation period, however, would find much to which he could take exception in this class exercise. First, this was to a large extent a remembering period rather than a thinking period. A good part of the lesson consisted either in review or in recalling what was written in the textbook. As has been suggested, the array of facts which was brought out in the beginning of the period was con-

siderable, but one may well doubt whether any one child could have given more than a small fraction of the total. Moreover, such a method of review is inefficient in these days of mimeographs and new-type tests. A check of the real mastery of the facts on the part of the children could have been made far more satisfactorily and in a fraction of the time by a simple, informal, objective test. The observer, then, does not question the need of mastery of facts; he is merely pointing out how much better it can be checked through other means than a review recitation.

Second, there was a diffuseness and lack of organization throughout the recitation. There was a dead-levelism of facts and ideas, a lack of real prominence of some and a subordination of others. There was no continuity or sequence in the discussion so that the observer felt that no unity of impression could possibly have been created in the minds of the children.

This lack of organization touches the very heart of the question as to the way to make the recitation period a "thinking period." The very essence of thinking is the attempt to establish orderliness among data. Such orderliness implies the weighing of the importance of individual items, seeing their relationship to each other, and arranging them so that these relationships are plainly evident.

It is obvious that data are essential for such a process. Too frequently in our schools have we attempted to get children to think or to find a problem without acquaintance with enough facts in the field to make it possible. The first step in the study of any topic may well be that of bringing children into intimate contact with worthwhile and interesting data; but this process is merely the introduction to the need of thinking. The children in our illustration had well completed the introduction; they were prepared to bring some sort of order into the data they already knew.

We have used above the word "problem." In the process of thinking, data are best organized around problems and it is significant in this lesson to note that while in her first sentence the teacher asked the children what problem they had been working on, the response from the children was a topic, "The Mississippi Valley," and not a problem. Probably much of the diffuseness of the recitation may be traced to this fact. A problem points in a definite direction and to a considerable degree acts as a means of accepting, discarding, and

arranging data. A topic is more likely to prove a blanket invitation to bring into the discussion any data which are even remotely suggested by it.

Let us suppose that the teacher had begun her work with some such question as this: We have been reading and talking about the Mississippi Valley for several days. We do not know which are the most important facts, and we have not really learned any of them. Let us take this period to state our main questions and the smaller questions under them. Who has a suggestion for one of our important questions?

With children who have been taught to remember and recite, this might wake but little response. But in a school where emphasis on thinking has been the rule from the kindergarten up, real thinking would result. One can imagine that as the problems and sub-problems were suggested by the children some such outline as the following might have grown on the blackboard:

I. How important is the Mississippi Valley?
  A. How many states does the river drain?
    1. What part of the United States is this?
  B. How many people live in these states?
  C. How extensive are the crops in this region?
    1. How valuable are they?
  D. What things that we eat and wear come from this valley?

II. How can floods be prevented?
  A. What caused the flood last year?
  B. Are these conditions likely to happen again?
  C. Who ought to pay for flood prevention? Why?
  D. What plans are being made now to prevent floods?

If the time of the recitation period under discussion had been spent in making this sort of outline, there is no question that group thinking would have been prominent. Moreover, three other values would have been the result.

First, such an outline helps in remembering. The hardest sort of material to learn consists of unrelated facts. Even in memorizing nonsense syllables, the mind strives to see some sort of sequence or relation between them which will help in remembering. One can easily see how organization helps in memorizing if he will look at

the letters *m, d, f, l, g, e,* and note how difficult it would be to learn them as compared with the same letters arranged *d, e, f, g,—l, m.*

Second, an outline is a real assistance in the assignment of the next day's work. It surveys the field both for the class as a whole and for each individual, showing what work has been well completed and what still remains to be done. Assignments made in terms of questions in the outline make for better studying at home or in study periods. One can see where the work he is doing fits in with the total scheme of the work.

Finally, the presence of an outline on the blackboard makes for better recitations by the individual child. It helps to prevent thoughtless rambling on the one hand, and monosyllabic suggestions on the other. The teacher or other pupils can easily point to the outline and ask, "Which question are you talking about?" or "Just what is your contribution toward helping us to understand that question?"

The observer is not suggesting that this type of recitation is the only sort which is defensible. Other types may include recitations for the collection of data, for reports of committees, for directing study, for the appreciation of poetry or music, for drill, and so on. He is suggesting that a group-thinking type of recitation will be successful largely in proportion to the prominence of the organization of data which it includes.

# AN ANNOTATED BIBLIOGRAPHY OF RESEARCHES IN EDUCATIONAL PUBLICITY TO JUNE 1927

By LYLE MORRIS, EVERETT B. SACKETT, AND WHIT BROGAN

*Graduate Students, Teachers College*

THIS bibliography attempts to cover all available researches in the field of Publicity for the Public Schools up to June, 1927.[1] It should be of especial value when the student is concerned with some topic which has been treated in a typewritten dissertation or thesis not immediately accessible. Such documents can be secured only by borrowing through the most convenient university or public library.

For the purpose of this bibliography, research is considered to be the production of some tangible, distinctly new result or conclusion by reflective thinking from a collection of materials, data, or the writings of others, or from experimentation. It is not a mere compilation. It is not a rehash of the writings of others. It emphasizes conclusions from objective evidence rather than opinion or speculation.

ALEXANDER, C. Publicity Work for Better Support of Rural Schools. Journal of Educational Research, 7: 1-13, January, 1923.

The author met with students in the Rural Education Department in Teachers College for a period of six weeks, and listed a considerable number of motives for voting increased support for rural schools. This list was sent to eighty-six people definitely in rural education in different sections of the country and the items were ranked on importance.

Contains a chronological checking list of things to be done in a publicity campaign for increased support for rural schools.

ALEXANDER, C. Relative Importance of Current Objections to Secondary

[1] These were collected by Professor Carter Alexander, with whom the authors worked. See Alexander, Carter, "Research in Educational Publicity: Outstanding Achievements and Needed Studies." *Teachers College Record,* Vol. XXIX, No. 6, pp. 479-87, March, 1928.

Education. Unpublished; mimeographed, 1926. Obtainable from author, Teachers College, Columbia University.

Opinions of thirty-two high school principals, twenty-six state high school supervisors, and thirty college teachers of secondary education as to the relative importance of current objections to secondary education are tabulated.

ALEXANDER, C. School Statistics and Publicity. Silver, Burdett and Company, 1919. 321 pp.

The author gathered examples of good and bad presentations of statistics in school publicity. The advantage of writing a description of statistical findings over presenting them in tabular form is emphasized.

ALEXANDER, C. and THEISEN, W. W. Publicity Campaigns for Better School Support. World Book Company, 1921. 158 pp.

A careful study of seventy successful campaigns was made and a less careful study of many other campaigns. The causes of failure in the latter campaigns were also sought.

On the basis of these studies and from reports from school superintendents, the authors set up a list of common practices, helpful suggestions, and pitfalls to be avoided, as well as the principles to be followed in a campaign for school support.

BRISCOE, A. O. A Newspaper Publicity Policy for City School Systems. Typewritten Master's Thesis. University of Missouri Library, 1923.

A study of the news stories from the leading papers in nineteen cities of 4,000 to 8,000 population in Missouri and the literature pertinent to the subject. A score card for rating news stories. Statistically computed relations between the publicity practices and the accomplishments of the school systems. The author found that there is only slightly more school news in spring than in autumn and that athletics lead with Faculty and Parent-Teacher Associations following. Greater amounts of school news go with greater school accomplishments and a better quality of teachers.

CROSSWHITE, C. C. The City School House Organ. Typewritten Master's Thesis. University of Missouri Library, 1926.

The official publications of boards of education in twenty-one cities in sixteen states were studied with a score card developed by the author. He found that the editorials were most often on tax levies and on the aim of education, while feature stories were often of long addresses, poorly written and with no human interest. The quality was usually low and the material uninteresting.

DEFFENBAUGH, W. S. Methods of Advertising School Bond Issues. Pamphlet of the U. S. Bureau of Education, 1926.

Successful recent school bond campaigns are examined and the publicity methods used are listed and described.

FARLEY, B. M. What to Tell the People About the Public Schools. Typewritten Doctor's Dissertation. Teachers College Library, Columbia University, 1927.

An attempt was made to discover the relative importance and effect of different publicity materials. Questionnaires were used to determine the relative interests of the public concerning various items of school news. Newspapers were studied to see how they tended to satisfy these public interests.

There is very little relation between what the public says it wants to know about the schools and the information which newspapers give it. News most sought for by the public is least stressed by newspapers. The quantity of space given is thought to be sufficient—the quality of material presented, poor.

A valuable list of seasonable topics for school news is given in this study.

GARLIN, R. E. A Study of Educational Publicity in Texas Newspapers. Typewritten Doctor's Dissertation. University of Texas Library, 1926.

School news and advertising in all Texas newspapers for 17 months are tabulated under topical, monthly, seasonal, and departmental headings. Special treatment is given newspaper publicity on the Texas School Survey. The need for better organized news efforts on the part of the schools is pointed out.

GARLIN, R. E. Giving Publicity to City School Surveys. School and Society, 26:277-280, August 27, 1927.

Questionnaires to superintendents of cities that have had surveys showed that only seventeen of forty-eight reporting had no publicity program, but only eight had a publicity committee and only three had a publicity expert.

Media of survey publicity and groups likely to support and those likely to oppose surveys are listed.

GRANGER, O. School Publicity in Newspapers. Typewritten Master's Thesis. University of Chicago Library, 1924.

Fifty newspapers of midwestern cities are analyzed periodically throughout a school year. Space given school news is topically classified and listed in order of space given.

Very similar to other studies of this nature, although periodic stressing of certain types of news items may be studied somewhat casually.

GRINNELL, J. E. Newspaper Publicity for Public Schools of Minnesota. Typewritten Master's Thesis. University of Minnesota Library, 1925.

Public school publicity in newspapers was studied from the point of view of the reporter.

Accurate school news is difficult to secure and is obtained through the efforts of the newspaper reporters. Student reporters are the greatest contributors. The attitude of the school authorities toward newspapers is clearly portrayed and soundly criticized.

HINES, C. H. and JONES, R. G. Public School Publicity. Macmillan Company, 1923. 72 pp.

This is an analysis of the publicity media used in higher educational institutions, state departments, county school systems, and city school systems. The percentages of each type of institution using each of the media are given.

The authors describe the school report as they think it should be and give the characteristics and duties of the publicity director.

LEWIS, G. H. The Public High School in the Public Press. Typewritten Master's Thesis. University of Southern California Library, 1926.

Four newspapers, *The Ontario Daily Report, Los Angeles Times, San Francisco Chronicle,* and *Humboldt Standard,* were studied consecutively for a period of six months each. School news was listed in order of frequency.

This study is especially valuable in that it permits a study of the effect of seasons of the year upon school topics.

Dr. R. G. Reynolds' study of newspapers gives a more extensive and accurate picture of the general publicity given schools.

MCRUER, J. T. Effective Reporting of the Public Schools. Typewritten Master's Thesis. Stanford University Library, 1922.

An attempt is made to determine the form or content and material necessary to a valid and effective program for the annual reporting of public schools. Reports are analyzed and opinions of university professors and graduate students are used in the formulation of criteria for judging the value of the materials and methods of good annual reporting programs.

The topic does not readily lend itself to scientific treatment.

MANIER, D. L. Status of Publicity in Tennessee High Schools. Typewritten Master's Thesis. George Peabody College for Teachers Library, 1926.

Results of a questionnaire to Tennessee high school principals and a survey of Tennessee newspaper files show that all school publicity media are being used by the high schools of that state but that this is not due to any special effort by the schools.

MOEHLMAN, A. B. Public School Relations. Rand, McNally Company, 1927. 262 pp.

Score cards for judging annual reports, house organs, parent-teacher association organizations, and oral presentation of school publicity are presented. In addition, the author gives an excellent survey of the entire field of school publicity.

NEALE, M. G. School Reports as a Means of Securing Additional Support for Education in American Cities. Missouri Book Company, Columbia, Missouri, 1921. 137 pp.

This work gives the history of school reports as a background and shows present practice. By questionnaires, the author secured from five hundred and

sixty cities the types and costs of school publications, and found that superintendents rely chiefly on annual, biennial, and triennial reports. His recommendation is that reporting should be done at different times and that there should be several types of reports depending upon the audience.

PARKINSON, B. L. School Reports in Southern Cities of from 5,000 to 25,000 Inhabitants. Typewritten Master's Thesis. George Peabody College for Teachers Library, 1920.

This study is based upon results of one hundred and three questionnaires giving the opinions of superintendents and a comparison of twelve particular reports with forty others from other sections. The author recommends that the present practice of publishing reports be abandoned or that scientific methods be applied to their preparation.

PECK, R. R. and STEVENSON, P. R. Rural Publicity. Ohio State University Educational Research Bulletin, 2: 315-320, November 28, 1923. Ohio State University, Columbus, Ohio.

A schedule in the form of a check list was prepared from a study of the methods used in city publicity. This was sent to people experienced in rural school financial problems to determine what had been successful and what unsuccessful in rural school publicity campaigns. The authors found that the most common purpose for campaigns was capital outlay, and that the most effective means of publicity was the personal interview. Ignorance was a cause of failure in 100 per cent of those cases that failed.

PETERS, A. J. What the Parents Want to Know About the Schools. Typewritten Master's Thesis. George Peabody College for Teachers Library, 1920.

The author confined his study to one city of 5,500 population in Missouri and attempted to discover the exact inquiries made by parents by telephone or otherwise. He suggests that parents do not concern themselves to any great extent with matters not pertaining to the welfare of their own children unless the question is suggested to them.

PHELPS, S. School Surveys by High School Pupils. Typewritten Master's Thesis. George Peabody College for Teachers Library, 1916.

A study of a survey of the schools of Gallatin, Tennessee, made by the high school pupils in that city.

High school students did do valuable and accurate work under close surveillance by the superintendent of schools and the author, who acted as director. The possibilities in this field are not fully developed, but the author points the way for very valuable work by other superintendents.

REYNOLDS, R. G. Newspaper Publicity for the Public Schools. Published in 1921 by the author, now at Teachers College, Columbia University. 119 pp.

Space devoted to the school news over a three-month period in twenty-five dailies scattered over the country is measured and evaluated. Questionnaires to editors showed that they considered school doings good news, but that they disliked to use charts, etc. (Rules for preparing copy for newspapers are set up.) Questionnaires to superintendents indicated that most schools do little to get news into the papers. That school news should be gathered from all divisions of the system and be edited but not censored in the superintendent's office is the conclusion.

ROUTZAHN, E. G. The A B C of Exhibit Planning. Russell Sage Foundation, New York, 1918. 234 pp.

Hundreds of poster and exhibit programs, dealing chiefly with war publicity, were analyzed to determine the elements which lend to success. These two underlying principles of poster and exhibit publicity were evolved:

First.—Every exhibit should have just one central theme and every part of the display should lend to the meaning of that theme.

Second.—Every distinct purpose has practically a distinct audience to which the appeal must be made. The accuracy with which the audience is determined will measure the correctness with which the appeal can be directed.

ROUTZAHN, M. S. Travelling Publicity Campaigns. Russell Sage Foundation, New York, 1920. 151 pp.

One hundred thirty-seven train and truck publicity campaigns were studied. The types of material amenable to such publicity methods were listed and discussed, the steps in the organization of such a campaign were described, and the principles governing this type of publicity were formulated. Each campaign was described in three parts as follows: The preparatory work by means of which interest is aroused; the actual administration and procedure while the train or truck is in a town; and the follow-up work which keeps the main point of the campaign a live issue.

STEVENSON, P. R. A Coöperative Study of School Publicity. Ohio State University Educational Research Bulletin, 3: 167-178, August 16, 1924. Ohio State University, Columbus, Ohio.

Over one hundred campaigns conducted in coöperation with the Ohio Research Bureau are described. Types of organizations used to gather school news and types of news used by papers are studied in one hundred cities.

STEVENSON, P. R. Campaign Publicity for Schools, A Manual. Ohio State University Bureau of Educational Research Monographs, No. 5, 1926. 59 pp. Ohio State University, Columbus, Ohio.

Methods used in school publicity campaigns are analyzed and listed. A great many samples of publicity activities are presented but not evaluated. Continous publicity was found to lessen need of campaigns. Warning is given that public money should be spent sparingly for publicity.

# DIAGNOSIS AS A BASIS FOR THE DIRECTION OF STUDY

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THIS article is the fifth in a series by the authors on the direction of study of high school pupils. Articles which have previously appeared are: Problems in Directing Study of High School Pupils, January 1928; A Partial Bibliography on Study, February 1928; A Survey of Investigations on Study, Part I, March 1928; Part II, April 1928. Other articles in the series will appear in forthcoming issues.—EDITOR.

## INTRODUCTION

ANY consideration of study as a process should lead directly to learning, with all its implications. Study is a series of activities which are responses to situations created by an assignment. These situations have as their purpose the effecting of certain changes, such as forming habits, acquiring knowledge, awakening interests, developing appreciations, and the like. The study responses are just as truly a learning activity as any response within the class period. It is generally agreed that effective learning situations organized around a class hour cannot proceed without direction; that such learning is very complex, demanding the attention and guidance of an expert—hence the teacher. This expert is expected to provide stimulating, interesting, and worthwhile activities; to provide adequate facilities for obtaining desirable responses; and to guide and to direct the activity of the period.

On the other hand, that part of the school program known as study, the preparation of the lesson, has been left undirected and unguided. The responsibility has been thrown on the pupils to find their own way by trial and error in crowded study halls or to secure help elsewhere than in the school, usually in the home from unwilling parents or from classmates who share their results, achieved by

the same blind groping. The teacher sets the task and checks the results. Out of this has come for many pupils bad habits of work, superficial learning, dislike for the subject, and failure. Many investigators of failure have found that ineffective habits of work are important contributing factors. Study has been accepted as a simple process, when, in truth, it is very complicated, involving highly specialized activities, each demanding specific training and direction.

## ANALYSIS OF STUDY ACTIVITIES

The teacher must be aware of activities which comprise the process called study before she can teach pupils the most effective procedures for preparing a particular assignment. Two hundred and thirty teachers engaged in graduate study in secondary education in Teachers College,[1] analyzed several hundred assignments given to high school pupils, in an effort to list the specific study activities required in the preparation of these assignments. These teachers worked in groups according to the high school subjects which they were teaching at the time or in which they had had their major experience. When the first rough analysis had been completed, it was apparent that certain activities were common to many study situations. Certain other activities seemed to belong to special subjects, such as English, mathematics, and French.

The following list of activities, though by no means complete, indicates the complexity of study. They suggest the many and varied things we expect children to do when they study.

I. Reading:

1. Finding the answer to a question when the answer is contained in the material read.
2. Answering a thought or judgment type of question where the pupil must not merely comprehend the writer's statement, but must utilize the meaning in combination with other knowledge or experience to answer the required question.
3. Comprehending and stating the problem or question which a paragraph or series of paragraphs attempts to answer.
4. Selecting the main point of a paragraph; recognizing the topic or key sentence.

[1] The investigation of study outlined in this article was carried on by successive groups of experienced teachers enrolled in Education 235K—Directing Study of High School Pupils.

5. Outlining material read. This activity requires analysis, for the selection of main and subordinate topics, with a comprehension of the relationship of the ideas expressed.
6. Summarizing. The preparation of a summary utilizes the results of outlining.
7. Recognizing equivalent ideas even though differently expressed.
8. Comparing and evaluating two or more presentations of the same topic by different authors.
9. Reading rapidly for large meanings; skimming.

II. Problem Solving:

1. Reading and analyzing the statement of a problem to understand the facts or conditions given and to see the problem clearly.
2. Collecting data needed for a solution by recalling previous experience and seeking new data pertinent to the problem.
3. Selecting and organizing pertinent data; judgment and evaluation.
4. Checking and testing the results obtained.

III. Memorizing:

Retention and recall of material in an exact and precise form as in learning a vocabulary in a foreign language, a quotation, or a selection of poetry.

IV. Note-taking:

1. Notes without analysis or condensation in diary form.
2. Topical notes.
3. Notes with comments.
4. Notes in outline form.
5. Marginal notes.

V. Following Directions:

1. In the preparation of an assignment.
2. In the use of text and reference books.
3. In the preparation of themes or reports.
4. In the preparation of notebooks.
5. In the preparation and organization of a project.

VI. The Use of Books and Materials:

1. Cross-references in a textbook or reference.
2. A table of contents.
3. An index.
4. Footnotes.
5. A catalog.

6. Reader's guide, dictionaries, encyclopedias, and general reference books.

VII. Reading of Special Devices:

1. Graphs.
2. Statistical tables.
3. Diagrams.
4. Algebraic formulae.
5. Geometrical figures.
6. Scientific formulae.
7. Maps.
8. Time tables, etc.

VIII. Manipulation of Tools and Materials in Construction:

1. Laboratory work in various fields, including household arts, industrial arts, science, drawing, music.
2. Making maps, charts, and diagrams as used in history, geography, science.
3. Making stage properties, scenery, costumes, puppets as used in the social studies, English, and dramatics.

Such a list of activities provides a guide in the selection of the techniques needed for effective study. The teacher must determine the appropriate techniques and develop skill in training pupils to use these tools.

### FACTORS CONDITIONING STUDY

Assuming that adequate direction through the use of scientific techniques and procedures were available for the various activities involved in study, what would determine the degree of success to be obtained in a given case? In an effort to think through this problem the following factors were listed as conditioning study:

1. Ability to learn.
2. Ability to read.
3. Achievement in the specific subjects.
4. Physical condition—temporary and permanent.
5. Conditions for study in the home; home background.
6. Provisions for study in the school; the library facilities.
7. Schedule of work: program in class; outside of class.
8. Methods of work: how the child prepares an assignment.
9. Associates.

10. Attitude of pupil toward the work. Interest.
11. Personality of teachers.
12. Assignments; activities provided for; motivation.
13. Ability of teacher to direct study.

If these factors function at their best, the individual may be said to be working up to capacity. The ideal goal to be desired through study is that each individual may achieve to his maximum capacity, securing optimum results with a minimum of time and effort. The difference between what he can achieve and what he does achieve in a given field will measure the degree to which he does not succeed. This difference will be the result of the failure of certain factors listed above to function at their best. It is the responsibility of each teacher to discover the weaknesses and causes for failure, and she should be thoroughly trained in the use of those tools, devices, and techniques needed to discover these weaknesses. Every teacher should be a diagnostician. Only on the basis of expert diagnosis will a sound remedial program be possible. The proposed diagnostic program outlined below is presented as a suggestion to those concerned. It has been developed, tried out, and modified in practical school situations during three years by the teachers participating in the investigation.[2] Each member of the class made a careful diagnosis of four pupils whom she was teaching—three who were not succeeding, and one who was succeeding as judged by teachers' marks.

## ABILITY TO LEARN

The teachers gave to the four pupils selected for diagnostic study one or more of three tests of mental ability. These were the Terman Group Test of Mental Ability for Grades 7 to 12, the Otis Self-Administering Higher Examination, Form A, for Grades 7 to 12, and in some instances the National Intelligence Test for Grades 7 and 8. The result and interpretation of these test scores, given in October, were recorded on a diagnostic blank. The teachers had been asked to give their rating of the pupils' mental ability previous to the use of the tests. They were aided in the effort to rate these pupils by a discussion of the meaning of general ability for school

[2] The program outlined had to be organized around the needs and abilities of the group carrying it out. A very simple testing program was included, just enough to give these teachers an appreciation of the value of the tools. That this program is possible in a normal situation has been demonstrated by the scope and effectiveness of the work accomplished by this group.

success and by definite directions as to standards of judgment and meaning of the ratings given. Wherever scores were available from a previous mental or achievement test, these were included in the diagnostic record, chiefly for purposes of comparison. The teachers were asked also to attempt an answer to a list of questions designed to guide their observation of mental tendencies as shown in class work. The following type of record was used to summarize the results of tests and observations.

## INQUIRY ON THE FACTORS WHICH INFLUENCE THE STUDY OF HIGH SCHOOL PUPILS[8]

### Diagnostic Record

School .....Location .....
Name of Pupil .....Grade .....
Chronological Age (Years—Months as on October 15th) .....
Name of Person Making this Investigation .....

A. Mental Ability

I. Objective Measures:

1. Score on Terman Group Mental Test. Date of test.
2. Pupil's percentile rank among pupils of his grade in general, as indicated by Terman's norms, reported in his test Manual, page 9.
3. Mental age (base on group test).
4. Intelligence quotient (base on group test).
5. Teacher's judgment of pupil's intelligence (rating obtained as suggested by Haggerty Manual for Reading Test, Sigma 3, page 28).
6. Record from any additional mental test.
7. Record from any previous mental test.

II. Mental Tendencies Observed in Class Work:

1. Does pupil understand directions and instructions quickly?
2. Is he able to take directions as given to a group, without the necessity for further individual explanation?
3. Can he organize his ideas effectively to meet a specific question or problem?
4. Does his thinking seem accurate, straightforward, and reliable or is he likely to miss the point?

[8] The questions inserted at intervals in this article under the separate headings, are taken from the *Diagnostic Record*, developed and used by the students in Education 235K—Directing High School Study.

5. Is he honest in his application to a school task or does he tend to be a "bluffer"?
6. Does he do original thinking?
7. Does he ask intelligent questions?
8. Is he intellectually curious? Does he have a desire to know?

A fundamental factor in determining a pupil's success or failure in study is his ability to learn. No matter how many and what factors are later found to condition failure, the effort to discover the reasons for a given pupil's lack of success must include measures and judgments of his mental ability and aptitude for school work. The many investigations concerned with the use and application of effective tests of mental ability have revealed repeatedly the school's emphasis, in a diagnostic effort, upon many factors which are pertinent, but which are not as critical as the ability to learn. In a situation where the complete diagnosis reveals a mental ability relatively inadequate for the tasks attempted, correction of all the conditions revealed would not remove the pupil's difficulties, if the adjustment did not take account of this factor.

Where a school system has the aid of thoroughly trained psychologists and an adequate program of guidance, the teacher does not work alone and unaided in her effort to analyze the varied problems of pupil adjustment. In such a situation there may be available the results from a number of individual and group tests of mental ability, together with teachers' judgments, and a record of careful observation of pupils in class and study periods. In most cases, however, the teachers who participated in this study did not have the aid of a psychological service in their schools and had not themselves had training in the use of standardized mental tests as diagnostic tools. It was necessary therefore to provide some instruction in the use of group tests.

### ABILITY IN READING

An adequate analysis of a study problem should include the use of several tests of ability in reading. Each teacher tested the four pupils under investigation with the Haggerty Silent Reading Test, Sigma 3A, designed for Grades 7 to 12. Other tests used, where time permitted, were the Thorndike-McCall Reading Scales for junior high school grades, the Stanford Achievement Tests in Read-

ing, the Gates Silent Reading Tests, and the Woody Reading Test. Wherever the standard tests scores indicated unsatisfactory rate or comprehension, further analysis was attempted by informal tests and efforts were made to remedy the weaknesses found. In this, as in any effort to improve a pupil's skill or habit of work, the greatest and most rapid improvement came when the pupil's own interest and coöperation were listed.

Results of reading and other tests given were brought to the group for consideration and interpretation. Teachers became more concretely aware of the significance of reading skill as a factor in the study problem of high school pupils. They had not suspected in many instances that pupils attempting to read ninth grade civics or tenth grade history or literature in the senior high school were handicapped by reading skill sufficient only for sixth grade work. If diagnosis of reading difficulties and remedial instruction are to be at all productive, more attention must be given to the nature of the material to be read, the purpose of the reading, and the attitude or mind set of the reader. In some instances pupils were given intensive training in specific types of reading used in study, such as outlining, summarizing, and skimming for large meanings. Such exercises as those found in the Horn Study Readers [4] and the practice material developed by Barton [5] were utilized for this training. The McCluskey and Dolch Study Outline Test served to reveal the definite need for systematic practice in outlining in the various high school subjects.[6]

The following type of record was used for scores and interpretation of reading tests.

B. Ability in Reading

Name of Test: (*Haggerty Sigma 3A, A Silent Reading*).

Date Given .....

Grade .....

Examiner .....

[4] Horn, Ernest. *Learn to Study Readers.* Teachers' Edition of First Lessons, and Books IV and V. Ginn and Co. 1924.

[5] Barton, W. A. Jr. *The Effect of Outlining upon Achievement.* A study carried on in the Horace Mann High School for Girls 1926-27. Report in preparation.

[6] McCluskey, F. O. and Dolch, E. W. "A Study Outline Test." *School Review,* 32: 757-72, (December 1924.)

| Test | Number of Questions | | | Score | Possible Score |
|---|---|---|---|---|---|
| | Right | Wrong | Omitted | | |
| Test 1 ..... | | | | | |
| Test 2 ..... | | | | | |
| Test 3 ..... | | | | | |
| Total ..... | | | | | |

1. This pupil's chronological age (years and months to Oct. 15).
2. This pupil's mental age (years and months on Oct. 15).
3. This pupil's reading score is normal for:
   Grade..... Age.....
4. His Reading Quotient (Reading Age÷Chronological Age).
5. His Reading Accomplishment Quotient (Reading Age÷Mental Age).
6. Teacher's rating of this pupil's intelligence. (Follow directions for rating as given in Haggerty's Manual for Reading Tests Sigma 1 and 3, page 28.)
7. Teacher's rating of pupil's scholarship. (State subject in which scholarship is rated.)
8. Teacher's comments on test performance or interpretation of pupil's reading score. (Use back of sheet if necessary.)
   *a.* Does he read rapidly and accurately?
   *b.* Does he read slowly and accurately?
   *c.* Does he read rapidly and inaccurately?
   *d.* Does he read slowly and inaccurately?
9. Additional comment.

Note: If teachers use additional reading tests, attach a record of the results with comment.

### ACHIEVEMENT IN SPECIFIC SUBJECTS

In so far as time and opportunity permitted, standardized achievement tests were used to provide an objective measure of accomplishment, supplemented by school marks, in a given subject. In many subjects which the pupil was beginning for the first time no measure of progress could be had until several months had elapsed. The

achievement tests used in this phase of the investigation included the following:[7]

1. Columbia Research Tests in Algebra.
2. Woody-McCall Tests in the Fundamentals of Arithmetic.
3. Stanford Achievement Tests in Arithmetical Reasoning.
4. Stanford Achievement Tests in Fundamentals of Arithmetic.
5. Stevenson Tests in Problem Reading and Analysis.
6. Columbia Research Tests in Plane Geometry.
7. Schorling-Sanford Test in Plane Geometry.
8. Columbia Research Tests in English.
9. Diagnostic Tests in English Composition:
   *a.* Pressey-Bowers Capitalization Test.
   *b.* Pressey-Ruhlen Punctuation Test.
   *c.* Conkling-Pressey Sentence Structure Test.
   *d.* Conkling-Pressey Grammar Test.
10. Ruch-Popenoe Tests in General Science.
11. Ruch-Cossman Test in Biology.
12. Iowa Physics Test.
13. Powers Chemistry Test.
14. Van Wagenen Scales in American History.
15. Posey-Van Wagenen Scales in Geography.
16. Brown-Woody Test in Civics.
17. American Council Modern Language Tests.
18. White Latin Tests.
19. Ullman-Kirby Test in Latin Comprehension.
20. Stenquist Mechanical Aptitude Test.
21. Thurstone Tests of Clerical Abilities.
22. Hoke Shorthand Tests.
23. Blackstone Typewriting Tests.
24. Murdoch Sewing Scale.
25. Home Economics Information Tests.

All test scores were recorded on the Diagnostic Record and the data interpreted in relation to the mental test scores, school marks, teachers' judgments of ability and industry, physical condition, and the recorded observations of pupils' attitudes and methods of work.

In a few instances the Orleans-Solomon Prognostic Test in Latin was used with an entire class which expected to begin Latin at mid-

[7] For discussion of these tests with reference to their character and application, see Symonds, P. M., *Measurement in Secondary Education*, Chap. X, pp. 184-205, Macmillan Co., 1927. *See also* Ruch, G. M. and Stoddard, G. D., *Tests and Measurements in the High School*, World Book Co., 1927.

year. These scores, too, were studied in conjunction with the items indicated in the preceding paragraph. Teachers of history, geography, and civics made use of the Harvard Test for Background in Social Studies, a test designed to indicate what knowledge in these fields the pupil brings to his work in the social studies. In several instances teachers obtaining suggestions from available standardized tests and from class discussions on the character and service of such tests developed new-type examinations in the subjects which they were teaching. The preparation of such tests made necessary a careful reconsideration of values inherent in the material assigned to pupils for study. In the effort to analyze the factors contributing to a pupil's achievement in a given subject, all data which could be obtained concerning previous achievement, both in that subject and in other subjects, were studied to note fluctuations in progress and comparative success in several subjects. The form indicated below was used to record achievement test scores and school marks.

C. Scores on Other Objective Achievement Tests

Subject Tested .....
Name of Test .....Form.....
Date .....Grade.....
Examiner .....
Score: (Arrange in accordance with requirements of test used and norms given. Include also any comment or interpretation which you may wish to make.)

D. School Marks

1. List pupil's mark for the current year at end of the first report period in subject under investigation.
2. Previous school achievement in subject under investigation (school marks and achievement test scores, if available).
3. Any significant record or comment obtainable concerning achievement in other subjects. (For example, pupil's work in English is now being studied. His previous record in English was poor, but he did satisfactory work in mathematics and science.)

## HEALTH

In a few of the schools in which these teachers were working, the services of a school physician or school nurse were regularly provided. In these schools a record of the physical examination of each

pupil and the continued supervision by the nurse aided greatly in the effort to learn the extent to which a child's health and physical condition were disturbing factors in the study situation. Such records were supplemented by visits to the home and interviews with the parents. Additional information and the coöperation of the parents were sought in an attempt to provide medical aid or to improve conditions with respect to nutrition, sleep, exercise, etc. The pupil was observed carefully and called into personal conference to enlist his interest and coöperation in improving his physical condition.[8]

The following questions were used as a guide to the teacher who did not have a record from the school physician or nurse to aid her.

E. HEALTH

1. Chronological Age (years and months to Oct. 15).
2. Sex.
3. Height.
4. Weight: (Weight in relation to norm for this age.)
5. Physical Development: See Wood-Rowell Health and Growth Record [9] and Baldwin-Wood Height-Weight-Age Table.[10]
   *a.* How does he compare with the other members of his grade group (in your school) in physical development?
   *b.* Does his physical development seem to you normal or satisfactory for a child of his age?
6. How does he compare in physical energy with pupils of his age? Check.

   | | |
   |---|---|
   | Markedly poor | Below average |
   | Normal or average | Above average |
   | Markedly superior | |

7. Is the pupil's vision normal? Summarize any defects.
8. Is the pupil's hearing normal? Summarize any defects.
9. Indicate speech defects, if any.
10. Are there obvious defects of teeth?
11. Characterize his posture.
12. Is there any evidence of adenoids?
13. Is there evidence of nervous instability?
14. Does this pupil exercise self-control?
15. Has the child had serious illness? What? When?

[8] *Health Trends in Secondary Education.* American Child Health Association. New York, 1927. *See also* Terman, L. M. *Hygiene of the School Child.* Houghton Mifflin Co., 1914. 417 pp.
[9] Wood-Rowell Health and Growth Record. Bureau of Publications, Teachers College, New York City, 1925.
[10] Baldwin-Wood Height-Weight-Age Table. American Child Health Association, New York City.

16. Are there any other obvious physical defects which should be corrected?
17. Any other items which should be taken into consideration?

*Note*: In most communities the local physician and oculist will aid the teacher in obtaining needed information.

### HOME CONDITIONS WHICH AFFECT STUDY

The answers to these questions designed to reveal home conditions which affect study were obtained from data on file in the administration office, from other teachers who were working with the pupils, from informal interviews with the pupils, and from visits to the homes.

F. Home Conditions

I. General Questions:

1. Is the father of the person with whom the pupil lives a graduate of a college or university? High school?
2. Is the mother a graduate of a college or university? High school?
3. Is the pupil living with parents? Are both parents living? Father only? Mother only?
4. In what country was the father born? Mother? Pupil? What language is spoken in the home?
5. Does the mother engage in work outside the home? If so, what is the nature of this work? How much time per day is devoted to such work?
6. How many brothers does the pupil have? Sisters? How many of these are under school age?
7. What is the type of neighborhood in which the home is located?
8. Are home surroundings comfortable and pleasant? Is atmosphere of home wholesome?
9. To what extent are books and magazines available in the home? (Home library, use of public library, etc.)
10. Does the parent or the person with whom the child lives give evidence of active interest in the school life of the child? If so, in what way?
11. Is there chronic illness in the home?

II. Use of Pupil's Time Outside of School:

1. How many hours on the average does the pupil sleep daily? At what hour does he go to bed? At what hour does he rise? Does he keep these hours regularly?
2. Does pupil eat meals regularly?

3. How much time does the pupil give to the performance of home tasks? Nature of tasks? Does he engage in work for pay? Nature of this work? How many hours per week are given to this work?
4. How much time per week is given to lessons other than school work (for example, music, dancing, etc.)?
5. How many hours daily on the average are spent in active out-of-door exercise?
6. Is the pupil a member of clubs other than school organizations? If so, how many? Amount of time per week given to these clubs?
7. How often does the pupil attend the movies? Theatres? Does he attend afternoon or evening performances? Does he go to dances? How often? Is he permitted to attend movies, theatres, dances, club meeting during the school work? Does the pupil spend the night with friends, or have friends as overnight guests during the school week?
8. Does the pupil like to read? How much time does he spend each day on the average in reading other than school lessons? What daily newspaper does he read? What magazines does he read regularly? What kind of books does he read?
9. Is there a telephone in the home? Piano? Victrola? Radio?

III. Home Study:

1. Does the pupil study better at home or at school?
2. Is there a special place used for study? Is it in a quiet room away from the family group? Well lighted? Well ventilated?
3. Does the pupil have his own desk and other equipment which are used regularly for study?
4. Does the pupil have a definite time which is devoted regularly to study? At what time of day or night does he get the best results? Is the study period apportioned definitely to specific subjective? If so, give the schedule showing the order of subjects and the time apportioned to each. (Outline this schedule on the blank sheet attached.)
5. Does the pupil have to overcome a feeling of reluctance to study? When the study hour arrives, does the pupil get to work promptly? Does the pupil habitually work alone?
6. To what extent does the pupil study with classmates? Does he receive help from members of the family? From whom? How much? What kind?
7. Does he assist brothers, sisters, or fellow students in study tasks?
8. Is he frequently interrupted while studying?

Any one of these factors may prove to be a critical element affecting a child's interest in his school tasks, controlling the time available for study and influencing his methods of work. It is evidently very difficult for one teacher to obtain the answers to all the questions in this diagnosis of study difficulties for all pupils in all of her classes, unless she has the aid of a visiting teacher, or a school counselor, or information provided by the psychological staff. The heavy teaching load of many teachers makes it difficult to visit the homes of many pupils. Although there is no adequate substitute for the visit to the home and an interview with the parents by an intelligent and interested teacher, yet in an effort to analyze study conditions for a large group of pupils, a quantitative measure of the social and economic quality of the home [11] is a significant aid. Such aid is provided by the Sims Score Card.[12] An analysis of pupils' responses to the questions on the Sims Scale reveals factors and conditions which distinctly affect the pupil's attitude toward school work, his opportunity and facilities for study, and the contribution of his leisure-time activities to study. Information obtained from pupil's schedules [13] of daily activities is also of distinct value. If pupils report carefully and honestly for a typical week of the school year the activities in which they engage and the time spent on each, excellent material is at hand for determining whether or not sufficient time is given regularly to study.

The following form is used in the Horace Mann High School for Girls to obtain a report on the character and order of activities of a typical week.

HORACE MANN HIGH SCHOOL FOR GIRLS
TEACHERS COLLEGE, COLUMBIA UNIVERSITY

TIME RECORD OF ACTIVITIES
FOR THE WEEK .....1928

Name ..... Year..... Room.....
Section .....
(If Junior High School.)

[11] Flemming, Cecile W. and Rutledge, S. A. "The Importance of Social and Economic Quality of the Home for Pupil Guidance." *Teachers College Record*, 29:202-215. (December 1927).
[12] Sims, V. M. *The Measurement of Socio-Economic Status.* Dissertation, Yale University, 1926. Scale published by Public School Publishing Co.
[13] Sturtevant, S. M. and Strang, R. "Study of the Twenty-four Hour Schedules of Forty High School Girls." *Teachers College Record*, 29:994-1010 (June 1927).

I. How much time each school day did you spend on the activities listed below?

Record time *in minutes* for each activity and show totals in the spaces provided.

Keep the record from day to day. Do not wait until the end of the week. Write in any items under the different headings which are needed to complete your own individual record: for example, under "Class Attendance" and "Study," other subjects included in your program; under "Recreation," concerts, movies, etc.

| | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|---|---|---|---|---|---|---|
| 1. CLASS ATTENDANCE | | | | | | |
| (Excluding gymnasium and swimming)<br>English .....<br>Mathematics .....<br>French .....<br>.....<br>Total ..... | | | | | | |
| 2. STUDY | | | | | | |
| (*a*) *At School*<br>English .....<br>Mathematics ..<br>French .....<br>.....<br>Total ..... | | | | | | |
| (*b*) *At Home*<br>English .....<br>Mathematics ..<br>French .....<br>.....<br>Total ..... | | | | | | |
| 3. OUTSIDE LESSONS | | | | | | |
| Music .....<br>Dancing .....<br>.....<br>Total ..... | | | | | | |

| | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|---|---|---|---|---|---|---|
| 4. PRACTICE FOR OUTSIDE LESSONS | | | | | | |
| Music .....<br>Dancing .....<br>.....<br>Total ..... | | | | | | |
| 5. OUT-OF-DOOR EXERCISE | | | | | | |
| (*a*) *At School*<br>(Include regular gymnasium)<br>.....<br>.....<br>Total ..... | | | | | | |
| (*b*) *At Home*<br>.....<br>.....<br>Total ..... | | | | | | |
| 6. INDOOR EXERCISE | | | | | | |
| (*a*) *At School*<br>Gymnasium ...<br>Swimming ....<br>Basketball ....<br>Dancing .....<br>Total ..... | | | | | | |
| (*b*) *At Home*<br>(Excluding dancing lessons and practice)<br>Total ..... | | | | | | |

| | Monday | Tuesday | Wednesday | Thursday | Friday | Total |
|---|---|---|---|---|---|---|
| 7. Extra-Classroom Activities | | | | | | |
| Dramatics .....<br>Parties .....<br>Clubs, including Scouts .....<br>Class Meetings ....<br>Board and Committee Meetings ....<br>Other Work .....<br>Total ..... | | | | | | |
| 8. Recreation, Other Than Exercise | | | | | | |
| Recreational Reading<br>Visiting .....<br>Theatre .....<br>Music .....<br>.....<br>.....<br>Total ..... | | | | | | |
| 9. Civic and Charitable Duties (Specify) | | | | | | |
| 10. Sleep | | | | | | |
| 11. Eating, Dressing and Routine Activities | | | | | | |
| 12. Transportation | | | | | | |
| 13. Not Accounted for (Include helping at home; shopping, special interests, sewing, mending, etc.) | | | | | | |

II. How much time did you spend in study on Saturday and Sunday following the week described above?

| NAME OF SUBJECT | NUMBER OF MINUTES |
|---|---|
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |
| ..... | ..... |
| Total..... | ..... |

III. Was this week a typical one? .....

If not, please indicate in what respect it differs from a usual week's program? .....

.....

.....

In what activities do you engage that are not included in this week's record? How often do they occur, and how much time do you spend on them? .....

.....

.....

[This blank was prepared by Helen M. Atkinson, Assistant Principal of the Horace Mann High School for Girls, and Cecile White Flemming with advisory aid of a committee from the Horace Mann Parents Association.]

[*To be continued in the November number.*]

# LINCOLN SCHOOL AS A PUPIL SEES IT*

By PAULINE FRANCES BAERWALD
*Senior, Lincoln School, Teachers College*

KNOWLEDGE . . . If you look upon knowledge as a stairway whose top can never be reached, then to-day we have come to the first landing place. We have a moment to catch our breath, to look back reminiscently, to wonder what the first steps actually consisted of, and to see whether we have acquired the skill and energy to push on up.

How were we prepared for climbing? Were we pulled up the first steps? Did we pay any attention to the direction in which we were going? Have we relied on our own judgment as to the adjustment of our steps? Are we left bewildered on this first landing?

It seems to me Lincoln has given us eyes with which to see the steps, the strength to climb them, and a certain necessary respect for our own ability to tell the difference between a weak and a sound tread. Lincoln has made it possible for us to climb up together without crowding each other against the banisters.

I remember a study of boats we made in the third grade. We were never told that we would discuss kyaks on Monday, viking ships on Tuesday, and reach superdreadnoughts by Friday. Instead we found pictures of boats that interested us, wondered why certain peoples used certain kinds of boats, asked questions, looked things up and acquired, what seems to me now, an extraordinary amount of knowledge because we wanted to, because we were interested.

There was a year in which we studied natural resources. We went along step by step, topic by topic, and then suddenly got sidetracked. The conditions of the coal miners interested us. We studied those in detail, despite the fact that that phase of the subject had not been a feature in the outline of the course.

During one of our most noteworthy years in High School we decided to show the school what we had been doing. We wrote a history pageant and produced it ourselves. There was a teacher there

* An address delivered at the Commencement of the Lincoln School of Teachers College on June 8, 1928.

to help us when help was badly needed, but the affair was essentially ours. Ours was the choice of actors. Ours was the planning of costumes. Ours was the building of scenery.

Two years later we did practically the same thing in a Shakespearean festival. This time, not only one class, but the whole school worked together of their own volition, and incidentally made a good job of it. Now my own main interest lies rather on the literary side. But, over and over again, those among us who are interested in mathematics, in physics, in chemistry, have expressed themselves as feeling that they have been given every opportunity to follow their own interests and enthusiasms.

We have been free . . . I do not mean to give the impression that if the Athletic Council wishes to have a field meet on a certain date, and its faculty adviser knows, by some mystic means, that it is going to rain on that date, that he will allow the Council to go on with their plans so that they may learn to respect their own ability to make decisions. Or that a biology teacher will allow a class to decide not to obey the law of evolution, merely to give them the courage of their convictions. I do not mean to say that we have never been controlled in any way. Teachers have had influence on us. The most important part of this influence has lain in the personality of the individual teacher, and the relationship in which we are able to match argument for argument and feeling for feeling, rather than merely listen and nod our heads uncomprehendingly like Chinese mandarins.

In almost every phase of our work the attitude has been one of: "I am a capable person, and must not disregard my own thoughts and opinions; others are equally capable and their opinions must have equal respect and consideration." Over and over again, this is most evident in class; the most firmly convinced people are more than willing to argue, and even the most stubborn have been known to change their convictions after intelligent consideration. It seems to me that the school has found a medium to give one the courage of his convictions without the conceit of them.

When I was abroad last summer I visited one of the most modern of German schools, the *Lichtwark Schule* at Hamburg. Their subject matter was even less standardized than ours at Lincoln. Their discussions were most enthusiastic and intelligent. Their relationship

with their teachers was perfect. But right there, in spite of the genuineness, the soundness of their school, I saw the difference that made our school seem individual and personal. It seemed to me that they ran the risk of becoming intellectual snobs. The independent personalities which are a result of their system—and are similarly a result of our system—seemed unable to join in any coöperative movement. Each class in that German school was a small, exceedingly intelligent, and select group, entirely independent of the school as a whole. Might not this unconscious snobbery prove a detriment to the individual when the school breaks up? I feel that our student government protects us from this risk. Our student council, our deportment committee, our social committee, our town meetings, though very far from ideal, serve to make us each feel that we are a part of a more important whole, and that we must be a positive part, otherwise the whole cannot be completed.

The fact that our deportment is judged by ourselves gives even the most trivial punishment a weight which could not be gained from a scolding by a policeman, so to speak. Town meetings, rare though they are, give each individual a chance to help, a chance which the very great majority avail themselves of. Social activities are run entirely as we desire by people we wish to have run them. Most of our assembly programs are planned for by a committee of the council. We are even admonished weekly in a fatherly fashion by a well-known rotund member of our student body.

Of course, all this does not run as smoothly as it sounds. Nevertheless there is a distinct undercurrent of pulling together, and we are individually learning how to pull equally with others, without scamping and without tripping over each other's feet.

But I have spoken only of lessons and of student administration as such. The Lincoln School is more than subject matter in a book, or a committee of students to handle this or that among the students. The Lincoln School is a state of mind. No matter how important home, parents, and travel have been in influencing us, the school itself, the Lincoln School, has been our intellectual home for years. It has been my intellectual and cultural home for eleven years, from the day when the old building was opened at 646 Park Avenue. It has been to me on a small scale what outside life will be to me from now on. It has taught all of us to take on an equal share of the re-

sponsibilities of the community. It has given us self-confidence with which to face people and problems.

Psychologists and professional educators say that it is the first duty of any school or school system to prepare its pupils for living, to make them fit easily and readily into the real life around them, outside the school. If this is true, then we stand here to say, simply and sincerely, the Lincoln School is carrying out the most important reason for its existence.

# NEW STUDIES IN EDUCATION

## PERSONNEL STUDIES OF SCIENTISTS IN THE UNITED STATES *

ONE of the aims of vocational guidance is to furnish vocational information to young people contemplating a career. Beginnings have been made in gathering information about manual occupations and trades, but little has been done on behalf of the higher callings. The purpose of this investigation was to obtain accurate information about scientific vocations which will facilitate intelligent vocational decisions on the part of young persons interested in science and which will assist in proper recruiting of scientific workers.

For the compilation of the data used in the investigation, the Research Information Service of the National Research Council permitted the use of its personnel records of approximately 10,000 scientists in various classes, but owing to the small number in some fields, only twelve fields—9,912 cases—were studied.

The technique of massed vocational histories was applied to this investigation. In each group of scientists, the teachers were separated from the non-teachers. It was possible in the case of the former to get a more detailed history of professional promotion.

### CONCLUSIONS

1. Opportunities in the various scientific fields: Those sciences which can be applied in a practical way, such as Chemistry, Engineering, and Medicine, seem to offer the greatest number of opportunities. Biological sciences, such as Animal Biology and Plant Biology, are less frequently represented. Mental sciences, such as Psychology and Mathematics, offer still fewer opportunities. Natural sciences, such as Astronomy and Geology have the fewest representatives.

2. Opportunities in teaching science compared with positions in practical scientific work: In most fields the teachers outnumber the non-teachers, but in Agriculture, Chemistry, Engineering, and Geology there are more non-teachers than teachers, indicating that in these fields the greater number of opportunities lies in non-teaching positions.

3. Opportunities of the branches of sciences: *a.* In Agriculture the branches of Entomology, Forestry, Horticulture, and Pathology seem to offer the most opportunities. *b.* In Animal Biology, most of the opportunities to become prominent seem to be in the branches of Entomology and Ornithology. *c.* In Chemistry, much opportunity is found in Biochemistry, Organic Chemistry, Physical Chemistry, Inorganic Chemistry, and General Chemistry. *d.* In Engineering, Chemical Engineering, Civil Engineering,

* By Ching-Ju Ho, Ph.D. Teachers College, Columbia University, Contribution to Education, No. 298.

and Electrical Engineering are the branches which seem to offer the most opportunities. *e.* In Geology, more opportunities seem to be open in Economic Geology than in any other branch. *f.* In Medicine, the opportunities seem to lie in Pathology and Surgery. *g.* In Physics, a large number of opportunities are found in the branch of Optics. *h.* In Plant Biology, Plant Pathology and General Botany seem to offer the most opportunities.

4. Academic preparation of scientists: *a.* College education and advanced work are necessary in all fields, being more important for teaching than for non-teaching work. *b.* The work represented by the Bachelor's degree and the Doctor's degree is an important asset for a scientific career. *c.* In general, one may expect to receive the Bachelor's degree at the age of 23 or 24; the Master's at 26 or 27; and the Doctor's at 28, 29, or 30.

5. Age on becoming a prominent scientist: *a.* The time required for one to distinguish himself varies with the fields, but on the average, one should expect to be eminent by the age of 50. *b.* Non-teachers become noted at an earlier age than teachers.

6. Marital conditions in scientific fields: *a.* The number of married scientists is greater among the teachers than among the non-teachers. *b.* These scientists, in general, were married at the age of twenty-eight. *c.* Those who were married after receiving the Doctor's degree seem to have saved on the average two years more than those who received the degree after marriage.

7. Location of opportunities: Heavily populated Eastern states with their great number of educational institutions and industrial establishments, such as New York, Pennsylvania, Massachusetts, and the District of Columbia, and Mid-Western states, such as Illinois, Michigan, Minnesota, Ohio, and Indiana, offer more opportunities than the Southern and Western states.

8. Kinds of scientific work besides teaching: Government service offers numerous opportunities to scientists. Business offers opportunities to certain classes of scientists, such as Chemists and Engineers. Fields of special nature, such as Animal Biology, Astronomy, and Medicine are most in demand in special agencies, such as museums, observatories, and medical institutions. Work in research bureaus or private research bulks large in only a few fields—Psychology, Chemistry, Physics, and Animal Biology. Geology, Animal Biology, Engineering, and Medicine offer opportunities for private practice.

9. Rate of progress of teachers of science in colleges: One who is interested in teaching science in colleges should start as an Instructor by the age of 27. He should expect to be promoted to Assistant Professor at 30 or 31. After three years in this rank he should be an Associate Professor at 33 or 34. If he is unusually intelligent and industrious he may jump from Assistant Professor to Professor at 32. But if he pauses at the Associate Professorship he is likely to remain there for a long time, reaching his goal as a Professor at the age of 40.

### APPLICATIONS

These findings, if properly used, may be of value in several ways: (1) By way of vocational guidance, they give trustworthy information regarding scientific occupations on the basis of which young

people who are planning to work in science can make intelligent decisions. (2) By way of vocational selection, they furnish factual basis on which to recruit workers for the fields of science. (3) To workers who are already committed to a scientific career, they offer a basis on which they may more wisely plan their advancement. (4) To the public at large they bring out more clearly in quantitative terms the part which eminent scientists play in the occupational world.

# PROFESSIONAL SUBJECT MATTER AS APPLIED TO JUNIOR HIGH SCHOOL MATHEMATICS *

THE purpose of this study was to develop a general technique for the scientific construction of professional content courses for the training of teachers, and to exemplify this technique by applying it to the field of junior high school mathematics.

The following sources of data were employed: catalogs of teacher-training institutions, to show present practice regarding mathematics courses offered in such institutions; results of tests administered, to furnish evidence concerning the mathematical equipment of freshmen entering teacher-training institutions; opinion of experts, obtained by questionnaire and used as evidence concerning the extent and character of "marginal" knowledge desirable; the field of mathematical literature, as a source of materials of instruction for the student teacher; and finally, personal judgment and conviction, based upon experience, scholarship and sympathetic insight, and considered essential in view of the lack of precedent.

## DEFINITIONS AND ASSUMPTIONS

The following assumptions were made: (*a*) The terms "professional subject matter" and "professional content course" are synonymous, and were used throughout with the interpretation given below. (*b*) Marginal knowledge may be justified on one or more of the following grounds: psychological considerations; as a provision for individual differences; guarding against a changing curriculum. (*c*) It is impossible to train junior high school teachers adequately in less than three years of post high school work.

## INTERPRETATION OF PROFESSIONAL CONTENT

The training school by itself cannot be regarded as the crux of the teacher's training; rather professional subject matter and student teaching together, as one, are fundamental in professional training. Professional content courses are to be supplemented by technical (i. e., purely professional) courses as well as cultural courses, the whole to form an integrated curriculum. Professional subject matter is to be conceived as a series of laboratory courses, including student teaching as an integral part of itself. Professionalization of subject matter must be accomplished in two successive stages; the first stage consists of a discriminating and purposeful selection of "pure" subject matter with respect to articulation, propaedeutic and vitaliza-

* By William L. Schaaf, *A Course for Teachers of Junior High School Mathematics*. Teachers College, Columbia University. Contributions to Education, No. 313.

tion values; the second stage, resting on the first as a foundation, *extensifies* the professional treatment by emphasizing the vocational aspects. The second stage also implies that the subject matter field has been broken up into appropriate "units" for convenience in handling. Throughout both stages the prime considerations are *appropriate selection, thorough integration,* and *wide flexibility of material.*

### GENERAL PROCEDURE

(1) The first step involved selecting and organizing the materials of instruction into appropriate "units" of subject matter. (2) This was followed by selecting and organizing the content of *each* unit on the basis of the following: (*a*) teacher's knowledge required; (*b*) appreciation background of subject matter; (*c*) educational and social values of the subject matter; (*d*) teaching objectives; (*e*) psychological considerations; (*f*) teaching procedures. (3) The final step was the assembling of these professionally treated units into a coherent syllabus, in which attention is given to sequence and curriculum construction, as shown below.

### BASIC EVIDENCE

The following preliminary studies were made to procure objective evidence upon which to build:

(*a*) A catalog study of 158 teacher-training institutions was made; 45 of these offered a special junior high school curriculum. The mathematics courses offered by these 45 institutions were analyzed in detail to determine to what extent, and in what manner, the courses had been "professionalized."

(*b*) Algebra tests were administered to 380 normal school freshmen, and geometry tests to 375 freshmen, distributed over six normal schools in different parts of the country. The purpose was to determine the extent and the character of the mathematical equipment of the average first-year student in the normal school.

(*c*) A questionnaire was sent to 50 carefully selected experts on junior high school mathematics, 27 of whom replied, asking their opinion on the degree of mastery desirable on the part of teachers with respect to each of 100 items of mathematics subject matter. This was to furnish objective evidence as a guide to the selection of marginal knowledge.

## A Provisional Syllabus for Professional Subject Matter

### FIRST SEMESTER

*Unit 1.* Introduction of Intuitive Geometry. Meaning of intuitive geometry; informal treatment of congruence, similarity, symmetry and loci.

*Unit 2.* Direct Measurement. Nature and precision of measurement; units of measure; laboratory determination of lengths and angles.

*Unit 3.* Simple Geometric Constructions. Construction of simple figures with ruler and compass; drawing of patterns and designs; paper folding; use of protractor.

*Unit 4.* Important Geometric Relationships. Fundamental properties of rectilinear and circular figures; congruence; parallelism; similarity.

*Unit 5.* Demonstrative Geometry. Purpose; methods; psychology; historical and mathematical background.

*Unit 6.* Arithmetic of the Home. Household and personal accounts; budgeting; buying a home; expense of owning

a home; household economics; food values.

*Unit 7.* Arithmetic of Business. Details of conducting business; distribution by freight, express, parcel post; commercial discount—justification.

SECOND SEMESTER

*Unit 8.* The Formula. Meaning and uses; derivation and transformations; relation to function and graph; applications.

*Unit 9.* Indirect Measurements. Scale drawings; Pythagorean relationship; similar triangles; trigonometric functions; use of tables; solution of right triangles.

*Unit 10.* Rapid and Accurate Computation. Review and drill; use of checks; variety methods; proficiency in skill.

*Unit 11.* The Use and Care of Money. Kinds of money; simple and compound interest; savings and commercial banks; thrift; transmitting of money; foreign exchange.

*Unit 12.* The Investing of Money. Stocks and bonds; markets and exchanges; safety of investments; mortgages; building and loan associations.

*Unit 13.* Protection of Property and Provision for Dependents. Life insurance; mathematical basis; social values; property insurance; accident and health insurance; workmen's compensation.

*Unit 14.* Community Arithmetic. Property taxation; income tax; duties; internal revenue.

THIRD SEMESTER

*Unit 15.* Directed Numbers. Laws of operation of signed numbers; historical development; geometric interpretation; significance.

*Unit 16.* Graphs and Statistics. Pictographs; bar, line and circle graphs; cartograms; measures of central tendency; normal distributions; correlation; precision of measurement.

*Unit 17.* Fundamental Operations in Algebra. Addition, subtraction, multiplication, division; fractions; factoring; number system of algebra.

*Unit 18.* Equations and Problem Solving. Linear, fractional and simultaneous equations; verbal problems; puzzles and recreations.

*Unit 19.* Graphs of Mathematical Relationships. Direct and inverse variation.

*Unit 20.* Roots and Powers. Radicals; laws of exponents; finding of roots; logarithms; use of tables; slide rule.

*Unit 21.* Quadratic Equations. Algebraic and graphic solution of quadratics in one and two variables.

## STATE CONTROL OF TEXTBOOKS *

### With Special References to Florida

THE purpose of this study was to determine the principles which should govern the relationship between the state and the local community with respect to the selection and provision of textbooks in Florida.

The procedure for determining these principles was as follows: First, to ascertain and compare the legal provision for textbook selection and provision in the several states. Second, to examine the evidence for and against the most

* By C. J. Tidwell, Ph.D. Teachers College, Columbia University, Contributions to Education, No. 299.

important legal provisions, viz., uniformity and free textbooks, and to infer from this evidence specific criteria for evaluating the proposed textbook law. Third, from the general principles of state responsibility for a minimum educational program, to infer additional criteria which have specific reference to textbook selection and provision. Fourth, to trace the historical development of textbook legislation in Florida, and to discover the attitude of teachers and other school officials in the state toward the operation of the law now in effect. Fifth, to develop general provisions which will be in accord with the criteria previously set up for evaluating the proposed textbook law for Florida.

In Chapter I trends in textbook legislation are shown for a period of thirty years. The essential features of state textbook laws (uniformity and free textbooks) are compared at four ten-year intervals.

Chapter II presents a summary of the provisions found in the current textbook laws of the several states. It discusses the major provisions which are common to all of them, and points out features which are peculiar to certain states.

Chapter III traces the development of textbook legislation in Florida from the beginning of statehood down to the present law. It also shows the attitude of teachers and county superintendents in the state toward the operation of various features of the present law.

In Chapter IV arguments for and against uniformity of textbooks and free textbooks are presented. Criteria are proposed for a textbook law which will retain most of the advantages claimed without the disadvantages.

Chapter V deals with the relationship between the state and the local community with respect to responsibility for education. Out of the general principle of state responsibility for a minimum education program, corollary principles are developed to show the state's responsibility for textbooks. Additional criteria are proposed with reference to state participation in textbook selection and provision.

### SUMMARY

Chapter VI summarizes the criteria proposed in the preceding chapters, for evaluating the proposed textbook law for Florida. They are as follows:

1. The state should set up, through its constituted agents, minimum standards for textbooks.

2. Authority to set up standards and to make regulations concerning textbook selection should be vested in a competent, responsible, and professional body.

3. Standards for textbooks should be set up in the form of approved multiple lists for each subject and each grade.

4. Local districts should be permitted to select textbooks from the approved multiple list to suit local needs. Local districts that have peculiar needs not met by books on the approved list should be permitted to adopt other books, on proper showing.

5. The term of adoption should be flexible. Districts should be free to change books when the best interests of their schools will be served by doing so.

6. The cost of textbooks under the proposed plan should not be greater than it would be under any other plan.

7. All textbooks, supplementary books, reference books, and other necessary instructional supplies should be furnished to all public school pupils free of charge.

8. To the extent that such textbooks, supplementary books, reference books, and other instructional supplies are es-

sential to the realization of the state's minimum educational program, the state should assume responsibility for equalizing the tax burden necessary to furnish them.

9. Local districts should be given as much freedom in the management of their schools as they are capable of exercising wisely and effectively.

10. The proposed law should conform to the native characteristics, institutions, and economic conditions of Florida.

General provisions which should be included in the proposed textbook law for Florida are then suggested, in accordance with the criteria proposed and in the light of existing conditions in Florida.

# COLLEGE NEWS

## BOARD OF TRUSTEES OF TEACHERS COLLEGE

AT THE meeting of the Board of Trustees of Teachers College held at the College on Thursday, April 19, 1928, the following action was taken:

Charles E. Rush, A.B., B.L.S., was appointed Librarian of Teachers College and Professor of Education, with a seat in the Faculties of Education and Practical Arts, from July 1, 1928.

John R. Clark, Ph.D., was appointed Principal of the High School Division of The Lincoln School and Associate Professor of Education, with a seat in the Faculty of Education, from July 1, 1928.

Professor Benjamin R. Andrews and Professor Jesse F. Williams, of the Faculty of Practical Arts, were assigned also seats in the Faculty of Education.

Professor Gertrude K. Colby and Professor Ralph B. Spence were granted leave of absence for the entire academic year 1928-29.

## COLUMBIA UNIVERSITY HONORS DEAN WILLIAM F. RUSSELL

At the University Commencement exercises in June, the Butler Medal (in silver) for 1928 was awarded to Dean William F. Russell "in recognition of his studies in education at home and abroad, his administration of the International Institute, his service in promoting international coöperation between institutions of learning, and his recent appointment to his present position of responsibility."

Dean Russell delivered the address at the summer session Convocation of the University of Pittsburgh on August 10. His subject was "Some Implications of Democracy." The University conferred upon him at that time the honorary degree of LL.D. At the meeting of the National Education Association in Minneapolis in June, he presided at a meeting of the Committee on International Relations, of which he is Chairman. He also delivered two addresses before the convocation of the Canadian Federation of Teachers at Winnipeg in July.

## DR. JAMES E. RUSSELL RETURNS FROM ABROAD

Dean Emeritus James E. Russell arrived in New York on August 11 after a trip of seven months taken on behalf of the Carnegie Corporation, through New Zealand, Australia, and South Africa, with a few weeks spent in England, mainly Oxford and Cambridge, and in Germany in attendance at the Conference on Adult Education at Oberhof.

## CHANGES IN HOUSEHOLD ARTS IN 1928

During the past college year rapid progress was made in the reorganization of courses in line with a policy adopted several years ago when the Faculty and Trustees decided to discontinue the four-

year curriculum. All these changes are with reference to the needs of students who come to Teachers College for study on the graduate level. Similar adjustments of courses for advanced students have from time to time in the past twenty years occurred in various groups of courses in the School of Education in its transition into a graduate professional school. Only the fact that the School of Practical Arts conducted for fifteen years (1911-1925) an undergraduate four-year curriculum has delayed until the past two years the adjustments parallel to those which occurred many years earlier in the School of Education.

The most important changes in household arts courses made during the past year consisted in (1) the dropping of a few courses which were adapted to the four-year curriculum, (2) the organization of the new professional "Topical Courses in Household Arts" and (3) the addition of new courses in child care, parental education, child psychology, and curriculum construction—all with reference to the teaching of household arts.

The group headings—Foods and Cookery, Textiles and Clothing, House Management, etc.—which have been used in Teachers College since 1911 will not be used hereafter, but in the *Announcement* courses will be listed in the following groups:

A. Courses on Food for the Family.
B. Courses on Textiles and Clothing for the Family.
C. Courses on Housing, Equipment, and Management.
D. Courses on Economic, Social, and Aesthetic Problems of the Family.
E. Courses on Health of the Family.
F. Courses on Education in Household Arts.
G. Courses on Community and Institutional Problems of Household Arts.
H. Topical Courses in Household Arts.

Household Arts in Teachers College has long been organized as one department, and not as a group of departments. Its internal administration of instruction will hereafter be under a committee with representatives from Groups A to G above. As heretofore, certain officers of instruction will be in charge of the laboratories, but these directors will submit all important instructional problems to the committee through its elected chairman.

The reorganization of courses in the past three years has led to some changes in staff, and a number of officers of instruction whose work was primarily undergraduate have accepted positions elsewhere. Some new staff members have been appointed. Especially important is the fact that Professor Bess V. Cunningham has been appointed a member of the household arts staff to develop child care, parental training, and related aspects of home-making education. Several specialists will be lecturers on advanced technical problems. Curriculum research in household arts will not be discontinued but will be under the general direction of Professors Bonser, Winchell, Cooley, Cunningham, and Spohr.

The rumor that Teachers College has reduced its emphasis in the household arts field obviously applies only to the old curriculum for four-year undergraduates who are no longer admitted. So far as concerns work adapted to mature students who have had four or more years of educational experience in advance of high school, Teachers College looks forward to rapid expansion of advanced

instruction and research in household arts on the graduate level. It is recognized that "home economics" will be permanent, in one form or another, in American education; and, as in many other fields, Teachers College will strive to give its students the most progressive work possible.

In the pages devoted to Household Arts in the 1928-29 *Announcement* it will be noticed that there are many constructive changes which point to evolution in household arts, but not a great revolution about which there have been rumors. One who compares the *Announcements* for the past three years will recognize that all the changes have been determined by the move from an undergraduate curriculum to an exclusively graduate level of courses.

## INTERNATIONAL INSTITUTE OF TEACHERS COLLEGE

The International Institute has announced a series of lectures on American Education to be offered from October 2 to February 12 by distinguished educators drawn from the universities of America. The speakers include Paul Monroe, George D. Strayer, Alvin S. Johnson, William H. Kilpatrick, Charles H. Judd, Ernest H. Wilkins, James E. Russell, Walter A. Jessup, William F. Russell, Harold Rugg, Edward L. Thorndike, William C. Bagley, Mary E. Woolley, Robert R. Moton, Albert R. Mann, John Dewey, Boyd H. Bode, Nicholas Murray Butler. A definite effort has been made to include in this group a reasonable proportion of persons from outside Teachers College.

This program is the direct outgrowth of recognition on the part of the Institute of the needs of students who come from foreign countries for the purpose of studying American educational institutions.

In these lectures subjects have been selected which will present to the hearers a general and rounded picture of education in the United States. The expectation, however, is not that the lectures will be in any large measure purely descriptive in character. The emphasis will be placed rather on the interpretation of our educational institutions, present-day trends and tendencies, and the critical appraisal of the contemporary situation. Also from beginning to end the analysis will be related to the social and cultural setting in the United States. The hope is that this series of lectures will provide a genuine critique of American education in its relation to American life.

It is expected that this series will be followed in subsequent years by other series which will deal with additional phases of American education and culture.

Although the series is designed in the first instance for students from other countries, the lectures are open to all others who may be interested.

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The International Institute of Teachers College and the Central Institute for Education and Instruction of Berlin announce a tour of Germany's educational institutions for the summer of 1929. This tour is organized by the Central Institute which operates under the auspices of the Prussian Ministry of Education and the German Federal Ministry of the Interior.

The selection of members of the party will be in the hands of the International Institute. The tour will afford a most unusual opportunity to see German schools, since it is under the official di-

rection of the German educational authorities. This provision assures the members of the party the closest insight possible into the school systems. This is the first time such an opportunity has been afforded American teachers as a group.

The visitation of schools will begin on June 17, 1929, either at Hamburg or Bremen, and will continue for six weeks, disbanding just before the World Federation of Educational Associations Conference in Geneva, which meets the last week in July, 1929.

The tour will include visitation to the most prominent German cities, among which will be Bremen, Hamburg, Lubeck, Kiel, Berlin, Magdeburg, Leipzig, Dresden, Chemnitz, Gera, Jena, Weimar, Nurnberg, Munich, Stuttgart, Heidelberg, Frankfort, Weisbaden, Coblenz, Mainz, Bonn, Cologne, Dusseldorf, and Essen.

Various types of German educational institutions will be seen, such as elementary schools, secondary schools, rural schools, vocational schools, community and country boarding schools, teachers colleges, universities and folk universities, and all types of education such as physical education, and the like. Emphasis will be placed upon physical education, art education, dramatics, the Youth Movement, school organization, methods of instruction, outdoor life, playgrounds, and juvenile welfare.

The members of the party will assemble at Bremen or Hamburg, the starting point, arriving there by any route which they desire. The Central Institute will have complete charge of the party while in Germany, although the group will be accompanied by a member of the International Institute. The total expense for each member for the time spent in Germany (approximately six weeks) will be $350.00. There will be twenty-five in the party and membership will be limited to those who have some command of the German language. Anyone interested in this visitation tour may secure fuller information from Dr. Thomas Alexander, Teachers College, Columbia University, New York City.

## BUREAU OF PUBLICATIONS TEACHERS COLLEGE

The Bureau of Publications has recently published or has in press a large number of books and pamphlets pertaining to the work of the various departments of the College. Among them are the following representative titles, grouped according to departments.

### Educational Administration

*School Building Management: The Operation and Care of School Plants,* by Dr. Charles E. Reeves and Dr. Harry S. Ganders, is a four-hundred page, illustrated addition to the School Administration Series edited by Professors Strayer and Engelhardt. This book is for use by college classes and public school officials. A third volume in the School Problems Series will shortly be ready. The authors are Professors Engelhardt and Alexander and it comprises 113 problems in *School Finance and Business Management,* similar in treatment to *Problems in Educational Administration* and *School Building Problems.* Another comprehensive volume, *Public School Building Programs for American Cities,* by Professor Engelhardt, also is in press. It describes the building programs of ten representative American cities.

Recent dissertations in this field are

*The Teacher's Contractual Status as Revealed by an Analysis of American Court Decisions,* by Dr. Ira M. Allen; *Control of Available Public School Income, with special reference to Cities of New York State,* by Dr. Dale S. Young, and *State Aid for Educational Projects in the Public Schools,* by Dr. Lester N. Neulen.

### Advisers of Women

Two companion studies of the work of deans of women are now available; one, *A Personnel Study of Deans of Women in Teachers Colleges and Normal Schools,* by Professor Sturtevant and Dr. Ruth Strang, and the other, *A Personnel Study of Women Deans in Colleges and Universities,* by Dr. Jane L. Jones. These two studies form the first and most comprehensive research in this field.

### College Administration

The *Survey of Higher Education of the United Lutheran Church in America* has gone to press and will be published during the present school year. It will comprise three volumes of about five hundred pages each. This important study will be used as a general textbook in college administration. The survey has been directed by Dr. R. J. Leonard and Dr. E. S. Evenden. Dr. F. B. O'Rear has served as assistant director.

### Elementary Education

The first volumes of each of the two new series edited by Professor McCall have appeared. They are *How to Classify Pupils,* in the Standard Procedures in Education Series, by Professor McCall and Dr. Bixler, and *Check Lists for Educational Research,* in the Standard Research Procedures Series, by Dr. Bixler. Both of these are non-technical and readable little books of attractive make-up and size.

*Motion Pictures for Different Grades,* by Mrs. Mary Allen Abbott, published in the late summer, is a study of screen preferences of pupils of Grade 6 to Fourth Year High School. It is of interest to the general educator as well as to parents.

A bulletin of more than usual interest is *The Inventory of Habits of Children from Two to Five Years of Age,* by Dr. Ruth Andrus. This pamphlet takes the place of the Habit Inventory for Years Two to Four, with revisions and the added interest of the fifth year.

Dissertations in the field of elementary education are: *Comparative Studies of Current Practice in Reading,* by Dr. Laura Zirbes; *Teaching Speech in the Elementary School, a Comparative Study of England and the United States,* by Dr. Emma Grant Meader; *Educational and Emotional Adjustment of Stuttering Children,* by Dr. Elizabeth D. McDowell, and *An Analysis of the Characteristics of Citizenship,* by Dr. Thomas J. Mahan.

### International Institute

The *Fourth Yearbook* of the International Institute for the year 1927 was published by the Bureau in the late summer. With this volume the series now provides descriptions of the educational systems of forty-three countries, together with discussion of various problems of general interest.

### Normal School Education

The following three dissertations have been published in this field: *Normal School Education in Connecticut,* by Dr. J. L. Meader; *In-service Improvement*

*of the State Teachers College Faculty,* by Dr. Adolph Linschied; and *A Study of the Teaching of English in Teachers Colleges in the United States,* by Dr. Leon R. Meadows.

### Research in Home Economics Education

*The Placement of Home Economics Content in Junior and Senior High Schools,* a study directed by Dr. Annie Robertson Dyer, and *The Administration of Home Economics in City Schools,* also by Dr. Dyer, are two of the major studies of this Office made during the past months. They show present and desired practices in this field.

### Secondary Education

The Enriched Teaching Series, started last year, now includes three volumes—English, Mathematics, and General Science. These source books of illustrative materials have been favorably received and the one on English has already gone into a second edition. Commercial Science and other subjects of the high school curriculum will be presented during the current school year.

Dissertations in this field include *A Course for Teachers of Junior High School Mathematics,* by Dr. William L. Schaaf, and *Outcomes of Individual Laboratory Work in Chemistry,* by Dr. Ralph Horton.

# ALUMNI ACTIVITIES

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*Second Vice-President:* Dr. Bessie Lee Gambrill, Associate Professor of Elementary Education, Yale University, New Haven, Conn.

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*Corresponding Secretary:* Miss Katherine I. Sherwin, Executive Secretary of Student Organization, Teachers College.

*Treasurer:* Dr. R. G. Reynolds, Principal of Horace Mann School, Teachers College.

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Miss Marion Sheridan, 711 Orange Street, New Haven, Conn.

*Alumni Trustee:*

Miss Mercy J. Hayes, 301 American State Bank Building, Detroit, Mich.

*Alumni Office:* Russell Hall, Teachers College, 525 West 120th Street, New York City.

Address all communications to Katherine I. Sherwin,
Corresponding Secretary, Teachers College, New York City.

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Soochow, Ku, China

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100 Whalley Avenue
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Fulton High School
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Miss Leila Bunce
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Fulton High School
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115 North William Street
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## FIELD SECRETARY

Mr. Robert K. Speer, upon leaving Teachers College to become professor of elementary education at New York University, resigned his position as field secretary of the Alumni Association. Until a new secretary is appointed, Miss Katherine Sherwin, corresponding secretary, will be acting field secretary.

## TEACHERS COLLEGE CLUB OF GEORGIA

The largest annual meeting in the history of the Teachers College Club of Georgia was held in Atlanta on Friday evening, April 13, during the State Education meeting.

Dr. Marion R. Trabue, of the University of North Carolina, gave the principal address of the evening, taking for his subject "Trends in Modern Education." Dr. Gordon G. Singleton gave the College news.

The officers elected for the coming year were: President, Knox Walker, Superintendent of Schools, Douglas. Vice-president, Mr. G. W. Griffith, Principal, Savannah High School, Savannah. Secretary-treasurer, Miss Leila Bunce, Director of Home Economics, Fulton County High School, Atlanta, Ga. Directors: Supt. L. M. Lester (past president), Griffin; Miss Jessie Muse, Principal, Girls High School, Atlanta; Supt. A. J. Hargrove, Jesup; Supt. J. C. Dixon, Dawson, Ga.

## OKLAHOMA TEACHERS COLLEGE CLUB

The Oklahoma Teachers College Club held its annual banquet at the Skirvin Hotel in Oklahoma City, last spring. Dr. H. G. Bennett, President of the State Teachers College at Durant, presided. The guest of honor from Teachers College was Dr. Jesse H. Newlon, whose message concerning the activities and achievements of the College was greatly enjoyed. Mr. J. R. Holmes, Superintendent of Schools, Sapulpa, was elected president for the coming year, and Miss Lucy Helen Meacham, Director of Grades, Oklahoma City, was elected secretary-treasurer.

## MISSISSIPPI TEACHERS COLLEGE CLUB

The Teachers College Alumni in Mississippi formed a Teachers College-Columbia University Club at the Buena Vista Hotel, Biloxi, Miss., on April 27. They organized under the constitution used by Teachers College clubs. Dr. George D. Strayer was present at the organization meeting and offered many helpful suggestions.

Officers elected for the year: President, J. T. Calhoun, Rural School Supervisor, Jackson. Vice-president, Superintendent L. O. Todd, Philadelphia. Secretary-treasurer, Superintendent Joseph E. Gibson, McComb.

Those present for the organization were: Miss Willa Bolton, State Teachers College, Hattiesburg; Miss Agnes Bowe, Philadelphia; Mrs. J. T. Calhoun, Jackson; J. T. Calhoun, Jackson; George W. Ditto, Biloxi; Otis P. Eure, Vicksburg; Anne L. Fant, Columbus; Joseph E. Gibson, McComb; Marie Magee, Philadelphia; George Leavenworth, Ocean Springs; Mrs. George Leavenworth, Ocean Springs; Miss Frances Preston, Belhaven, Jackson; L. O. Todd, Philadelphia; and G. B. Watts, Ruleville.

## ALUMNI NEWS NOTES

Jessie Eleanor Moore (B.S. 1919) is the author of *Missionary Education of Beginners,* published in August, 1927.

Almeda May Janney (A.M. 1915) will continue this year at the University of the City of Toledo as associate professor of history and as assistant director of the Junior College, and academic adviser to freshman and sophomore women.

Maurice J. Newberg (A.M. 1918), who is professor of educational psychology and director of personnel at Wittenberg College, Springfield, Ohio, has published a second series of *Right Living, Teacher and Pupil* textbooks for junior high school age. He is also giving a course in Vocational Choice.

Rosalind Cassidy (A.M. 1923), professor and chairman, department of physical education, Mills College, Oakland, Calif., is co-author of *The New Physical Education.*

Hazel J. Cubberley (A.M. 1923), director of athletics at the University of California at Los Angeles, is the author of *Field Hockey Analyzed for Teacher and Student,* recently published by A. S. Barnes.

Miss Cassidy and Miss Cubberley were directors of the Mills College Field Hockey and Sports Camp conducted at Oakland, Calif., last July. Mildred Sharp Bruckheimer (B.S. 1926), Teresa M. Crowley (B.S. 1925) and Janet Shair (B.S. 1924) were assistants in the same camp.

Miss Cassidy is also chairman of a committee appointed by the State Chief of the Division of Health and Physical Education in California to work on a job

analysis of the profession of teaching physical education in the secondary school. The work was under the direction of Dr. Edwin Lee (A.M. 1915) of the University of California. This with an advised program for the high school student will be published in the new State Bulletin on Physical Education.

Dorothea Beach (A.M. 1921) will study at Teachers College during the year 1928-29.

Helen Raymond (A.M. 1926), teacher of home economics in the Morristown, N. J., High School, took a trip around the world last summer. She traveled through Europe, the Holy Lands and Egypt, Java, Singapore, China, Japan, and Canada.

Dale S. Young (Ph.D. 1928), of the State Department of Education at Montgomery, Ala., conducted courses during the summer session at the University of Alabama.

Stella S. Center (A.M. 1913), who is head of department of English in the Walton High School, New York City, and instructor in Extension, Columbia University, is also general editor of a series of English texts for junior high schools.

Allen M. Ruggles (Ph.D. 1924) has been promoted from associate professor to professor of education at the University of Oklahoma. His work is in the field of educational psychology.

Mrs. Richard Wagner, Jr. (Julia I. Way, B.S. 1921) is teaching at the Chrystie Street Recreation Rooms and Settlement in New York City. She has charge of all dancing classes.

Miriam Birdseye (A.M. 1923), who is a nutrition specialist, is the only woman inter-bureau subject-matter specialist in the U. S. Department of Agriculture, Washington, D. C. She acts as clearing house agent for the work of nutrition specialists.

Roy G. Fales (B.S. 1923) is instructor in industrial arts in the Manhasset High School, New York. He is continuing his graduate work at Teachers College.

Mina A. McKay (student 1919-20, S.S. 1921, '22, '23) has been appointed superintendent of the Charles Choate Memorial Hospital at Woburn, Mass.

Henry Tyler (A.M. 1927), formerly a member of the staff of the psychology department of Teachers College, Columbia University, has been appointed to the faculty of the Teachers College of Indianapolis.

Willis Thompson (A.M. 1927) has been elected principal of the Isaac E. Young Junior High School, New Rochelle, N. Y.

Hazel M. Clark (S.S. 1924), formerly dean of women at State Normal School, Frostburg, Md., has been appointed dean of women at Bates College, Lewiston, Me.

Eugene Bash (A.M. 1925) has been transferred from the principalship of the Henry Kumpf School to that of the Central Junior High School, Kansas City, Mo.

Mildred P. French (A.M. 1925), formerly a member of the faculty of Teachers College, has been appointed as dean of women and dean of home economics at Connecticut State College, Storrs, Conn.

Minna McLeod Beck (A.M. 1918) is head of the art department of Alabama College, Birmingham, Ala.

Louise Fisher Wright (Mrs. F. W., B.S. 1906) is teacher of health and recreation at the Smith College Day School, Northampton, Mass. This is an experimental school connected with the education department of Smith College.

W. A. Robinson (A.M. 1924) is principal of the new Austin High School of Knoxville, Tenn.

Myrtle Z. Pider (student 1917-18) is teaching English Literature in Irving College, Mechanicsburg, Pa.

S. P. Walker (student 1926-27) is teaching secondary education temporarily in Texas State College for Women at Denton.

H. E. Chandler (A.M. 1927), formerly superintendent of schools at Junction City, Kans., is now assistant professor of education, director of appointments bureau, and assistant to the director of summer session at the University of Kansas, Lawrence, Kans.

F. G. Cornell (student 1927-28) is head of the junior high school department of the Park School, Snyder, N. Y.

Lois Hankins (A.M. 1928) of the Institute of Child Welfare Research, Teachers College, has been appointed to take charge of the Frances Stern Nursery School in Brookline, Mass.

William W. Andrew (A.M. 1904), who has been assistant director of educational research at Columbia University, has been appointed superintendent of schools, Rocky River, Ohio.

Olive Dodge (B.S. 1923) has recently been elected third vice-president of the Alabama Education Association.

Ruth Andrus (Ph.D. 1924), of Teachers College, has been appointed director of child development and parental education in the State Department of Education, Albany, N. Y. A state program of research was inaugurated September 1 under her leadership.

G. Derwood Baker (A.M. 1925), formerly principal of Langley Junior High School, Washington, D. C., has been appointed principal of the South Pasadena Junior High School.

Doris Rosenthal (student 1912-1913) was director of the Silvermine School of Art, Norwalk, Conn., during the past summer.

Walter A. Hearn (A.M. 1922) has been appointed to a professorship in the Bible College of Missouri, Columbia, Mo.

Ella M. Appert (B.S. 1926) has accepted a position as instructor in fine arts in the public schools of Paterson, N. J.

Jacob S. Orleans (Ph.D. 1926), formerly research associate in the Educational Measurements Bureau, New York State Department of Education, has accepted a position on the Editorial Staff of the World Book Company. He is associated with Dr. Arthur S. Otis.

W. B. Phelan (student 1912-13) will continue this year as instructor in Latin and history at Princeton Preparatory School.

Fletcher Harper Swift (Ph.D.), professor of education at the University of California, offered several courses in the summer session of the Harvard Graduate School of Education. At the close of the session he left for Europe where he will spend his sabbatical year studying the systems of school support in France, Germany, and England.

*Correction.* It was stated in the April TEACHERS COLLEGE RECORD that the following people were studying at Teachers College on leave of absence from Kalamazoo State Teachers College: Esther M. Dunham (B.S. 1924), Edith E. Beechel (A.M. 1927), Lilian L. Stevens (A.M. 1925), Mabel B. Olsen (A.M. 1928), Jeannette Smith, (A.M. 1928). This should have read that they were on leave from the University Training School, Ohio University, Athens, Ohio.